

PEOPLE MAKING HISTORY: THE LAST
TEN THOUSAND YEARS OF HUNTER-
GATHERER COMMUNITIES IN THE
THUKELA BASIN

By

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For my family, especially my parents,
Ann, Nicola and Rebecca

PEOPLE MAKING HISTORY: THE LAST TEN THOUSAND YEARS OF HUNTER-GATHERER
COMMUNITIES IN THE THUKELA BASIN

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ABSTRACT

The primary aim of this thesis is to document and explain the 10 000 BP - AD 1800 history of the Thukela Basin hunter-gatherers. The primary information for this study comes from my excavation, between 1981 and 1984, of eight rock shelters in the upper Thukela catchment.

My aims and theoretical orientation have altered substantially since the project's inception. They have changed from being concerned primarily with ecological phenomena to the reconstruction of a regional social history. As part of this redefinition I have developed a critique of South African Later Stone Age (LSA) studies from the early 1960s, arguing that the predominant, ecological, approaches of this period are inadequate in dealing with past human societies.

My reasons for adopting a socially orientated historical approach concern the social relevance of archaeology, and the need to generate the best possible insights into past societies. I submit that historical materialism offers a very valuable framework for social historical analysis. The theoretical propositions germane to this study are presented.

I then concentrate specifically on Thukela Basin hunter-gatherer history. The periods dating to before and after 2000 BP are dealt with separately because of the arrival of farmers in the Thukela Basin around AD 500.

A study of the 10 000 - 2000 BP subsistence strategies and occupation density suggests that this society experienced a process of intensification. It is proposed that this phenomenon results from social structural changes. An analysis of the material culture remains and subsistence strategies suggests that the initial alliance network which covered most of the research area disintegrated shortly before 4000 BP and was replaced by three such networks. I submit further, that a gender related struggle was the main component informing this society's historical development. I argue, that women moved from a position of low status to higher status, principally by increasing their subsistence contribution, coupled with their control over food they collected.

Considering the 2000 BP - AD 1800 period, emphasis is placed on hunter-gatherer/farmer relations and the social development of hunter-gatherer communities. It appears that up to AD 1000 these groups enjoyed close, equitable, relations. Inadequate information inhibits our assessment of their relations after AD 1000, but it is suggested that the hunter-gatherers may have become clients of the farmers.

The conclusion highlights the advantages of my socially orientated approach, by comparing the knowledge generated by it and the ecological approaches used in South African LSA studies. Finally future avenues of research are suggested.

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CHAPTER 1

INTRODUCTION

The primary aim of this study is the documentation and understanding of Thukela Basin Later Stone Age (LSA) hunter-gatherer history. To this end, I present the interpretations of results from eight rock shelter excavations and two surface collections I conducted in the upper Thukela catchment between 1981 and 1984 (Figs 1:1 & 1:2). Results from previous research are also, where appropriate, included in this study. The period under study is the last 10 000 years, the latter part of the LSA which endured from around 30 000 years ago well into colonial times.

The history of LSA studies in the Thukela Basin dates back to over 50 years ago (King & Chubb 1932), but research has been small-scale and sporadic. In addition, it has been concentrated in the Drakensberg and adjacent areas, with only occasional work in the lower altitudes (e.g. Farnden 1965). Besides two small regional projects centred on the Cathedral Peak and Cathkin Park area of the northern Drakensberg (Pager 1971; Stein 1933; Wells 1933; Willcox 1971), all the research has been site orientated. This project thus heralds a new phase of LSA research in the Thukela Basin.

LSA research elsewhere in Natal has also generally been of an ad hoc nature with the notable exception of a regional project conducted by Cable (1984) on the last 3500

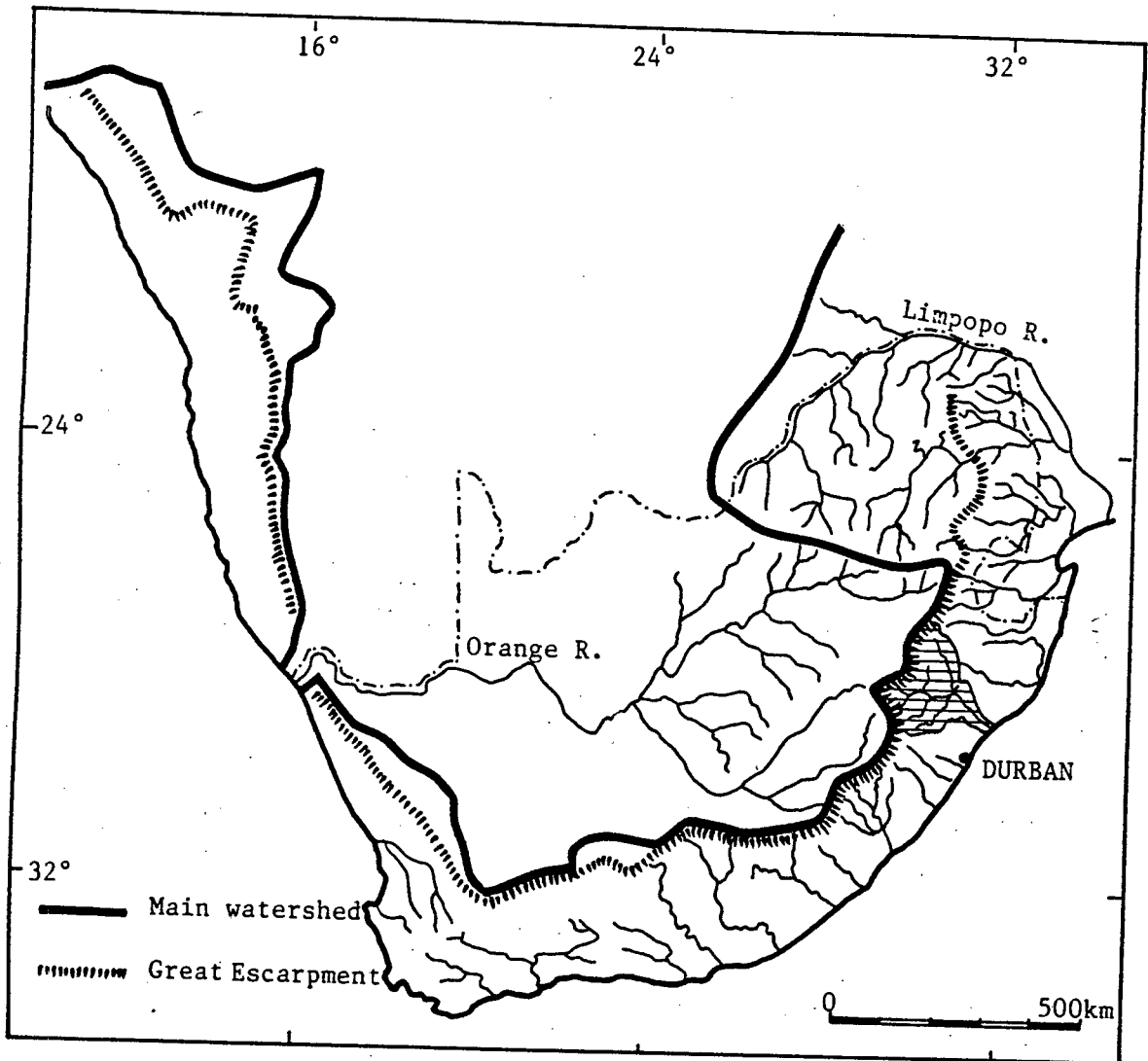


Fig. 1:1 Position of the Thukela Basin in South Africa.

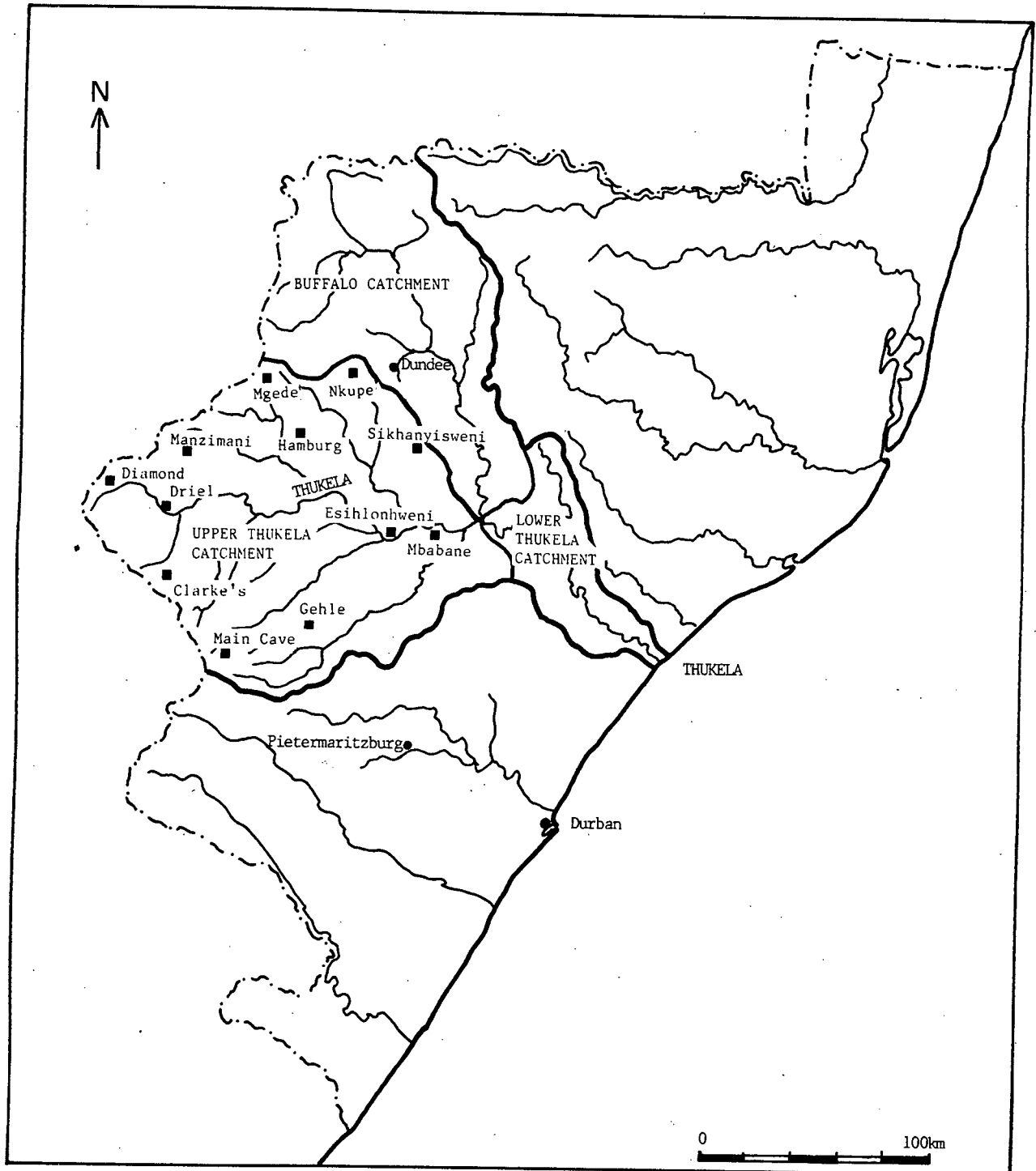


Fig. 1:2 Thukela Basin: major catchments and site locations.

years of hunter-gatherer history in southern Natal. Cable's project was less extensive than the one reported here and concentrated on only three sites, Good Hope Shelter in the Drakensberg, and Umbeli Belli Shelter and Borchers Shelter close to the coast.

The project's guiding principles have altered considerably since its inception in 1981. When first formulated, the project contained a strong ecological bias, stimulated by the research then being done in the southwestern Cape under the direction of John Parkington. In essence, I intended studying "prehistoric human ecology." The initial research proposal stated:

"Of particular interest will be the study of prehistoric subsistence strategies - whether they varied according to environmental zones and were seasonally orientated. The relationship between stone artefacts and prehistoric human ecology will also be examined" (Mazel 1981).

The Thukela Basin was viewed as a highly suitable area for such a project because of its clearly defined ecological zones which had been extensively researched. I perceived the Thukela Basin merely as an extremely convenient area in which to study some seemingly interesting theoretical propositions, for example, the relationships between environment and subsistence strategies and stone artefact variability and subsistence strategies. There was no commitment to producing a social history of the area.

Late 1984 saw my research aims and theoretical outlook alter fundamentally. I moved from an ecological, environmental-determinist position to one in which I viewed the reconstruction of a regional social history informed by social theory, in particular historical materialism, as paramount.

Several factors precipitated this fundamental shift in orientation. Firstly, the ecological approach seemed inadequate in explaining the archaeological patterns emerging in the Thukela Basin and was also only asking a limited range of questions about the society under study. These questions revolved around environmental and subsistence parameters with little, or no, cognisance of social phenomena. Secondly, and obviously linked to the above realisation, I began reading critiques on the application of ecological and biological theory in archaeological research and attempts to apply social theory to document and explain present and past hunter-gatherer societies. Thirdly, another factor which began coming into focus at this point, and primarily inspired by Trigger's (1980) comments on Euroamerican research of the Native American past, was that the post-1960s ecologically orientated LSA research was not concerned as such with the history of the people whose past they were studying. Indeed, as Trigger (1980) argued, this past was seen as an object of research rather than a subject of research. These criticisms will be developed further in Chapter 2.

These conclusions made it imperative that a substantially new approach to the project be adopted. While it was obviously too late to redesign the fieldwork stage, it was not too late to modify the aims and theoretical perspective of the reports and reconstructions and explanations emerging from this project. This study represents my attempt to do this. My primary aim has now become the reconstruction and explanation of the Holocene social history of the Thukela Basin hunter-gatherer society. This will be done using an historical materialist framework.

Justification for these positions is provided in Chapter 3.

Theses vary in the extent of emphasis on the presentation of primary data. The presentation of site-orientated empirical data will not be a feature of this study. Instead, data appropriate to the study will be presented in a synthetic and comparative manner. Full reports on six of the excavated sites and both surface collections have already been published and reports on the outstanding two excavations are in preparation. The sites which have been published are Gehle Shelter (Mazel 1984a), Diamond 1, Clarke's Shelter and Gudu River (Mazel 1984b), Mgede Shelter (1986a) and Mbabane Shelter, eSinhlonhlweni Shelter and Isifuthu Shelter (Mazel 1986b). Reports on Nkupe Shelter and Sikhanyisweni Shelter are in press (Mazel 1988a, b).

The remainder of this chapter briefly sketches the present Thukela Basin environment as well as what is known about its Holocene environmental conditions. Chapter 2 is a critique of South African LSA studies since the early 1960s. Chapter 3 presents the aims and theoretical framework of this study and also considers some methodological issues. Included in this chapter is a review of Lewis-Williams's (1984) paper 'Ideological continuities in prehistoric southern Africa: the evidence of rock art' written within a structural-marxist framework. Chapter 4 concerns the forces of production of Thukela Basin 10 000 - 2000 BP hunter-gatherer society, and Chapter 5 investigates the structural social developments as well as other aspects of social relations of production of this society. In Chapter 6, the forces and social relations of production are articulated and I propose a scenario which attempts to explain the patterns

discerned in this and the previous two chapters. Chapter 7 focuses on the last two thousand years of Thukela Basin hunter-gatherer history, with an emphasis on hunter-gatherer/farmer relations. In the conclusion (Chapter 8) I briefly contrast the approach taken in this study with those taken for similar periods in other parts of South Africa. Some future avenues of research are also discussed.

THE THUKELA BASIN: PAST AND PRESENT ENVIRONMENTS

The Thukela Basin is the largest river system in the province of Natal and covers some 27 000 sq km (Fig. 1:1). It stretches from the headwaters of the Mzinyathi (Buffalo) River on the Natal-Transvaal border in the north to the Mpofana (Mooi) River in the south and from the Drakensberg escarpment at an altitude of around 10 000 ft in the west, to the coast in the east. As already mentioned, the present research project concentrated on the upper Thukela Catchment (Fig. 1:2) whose western and southern boundaries are the same as that of the basin, but with its northernmost point at the headwaters of the Ndaka (Sundays) River and its easternmost point slightly upstream from the confluence of the Mzinyathi (Buffalo) and Thukela rivers.

The principal contours of the research area and major rivers are shown in Fig. 1:3 along with the locations of the sites mentioned in this report. The ecological zonation of the research area runs roughly north-south parallel to the

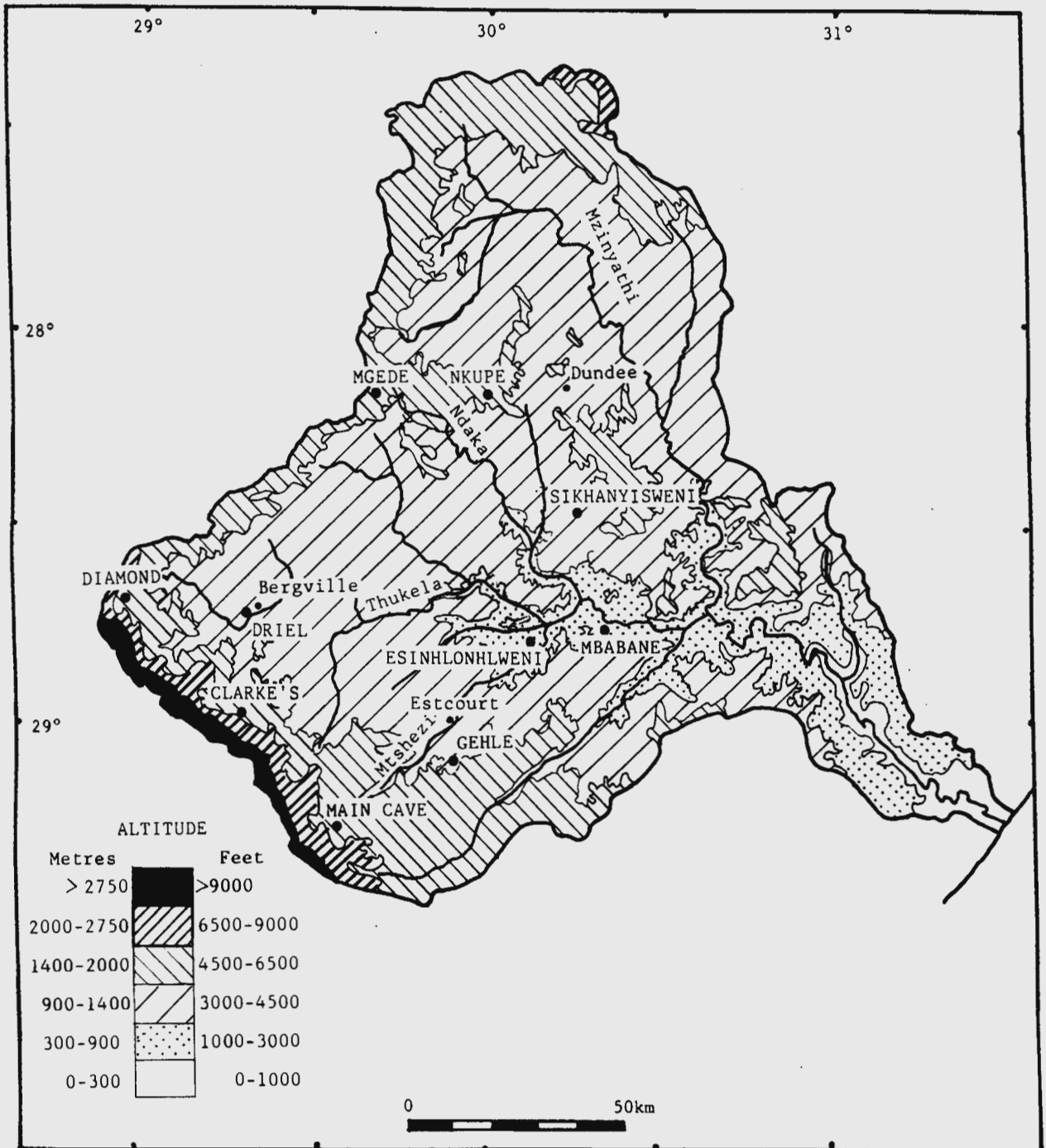


Fig. 1:3 Thukela Basin: principal contours and river systems and site locations.

Drakensberg escarpment. Four major ecological zones have been recognized in the Thukela Basin (Fig. 1:4) by Edwards (1967) who has described them in detail. Excavations were conducted in the uplands, montane and savanna zones. A comparison of Figs 1:3 and 1:4 shows the close relationship between the Thukela Basin's physiography and ecological zones.

Altitude, topography, and proximity to the Indian Ocean greatly influence the Thukela Basin's temperature and rainfall. The principal climatic features of this area are summarised according to the ecological zone in Table 1:1, modified from Edwards (1967). Clear differences emerge between the zones. While the mean daily temperature maxima in the different zones do not generally vary greatly, the mean daily temperature minima exhibit clear differences. The Coastal temperatures do not drop below 10°C, the Valley and Interior Basin temperatures display some internal variability but do not drop below 0°C, while the Highlands and Mountain zones drop below 0°C. These differences are reflected in the frost occurrences.

Differences are also evident in the amounts of rainfall these zones receive, with the Mountain region receiving the most, the Valley and Interior Basin regions the least and the Coastal, Midlands Mist Belt and Highlands regions in between.

Fig. 1:5 shows the positions of the North Eastern Cape, Eastern Lesotho and Swaziland in relation to the Thukela Basin. The Eastern Lesotho Holocene environment is the least known of these areas. On the basis of his Bellevue data, Carter (1978) commented that there is good evidence for an increase in precipitation between 13 000 and 4000 BP with a major increase in

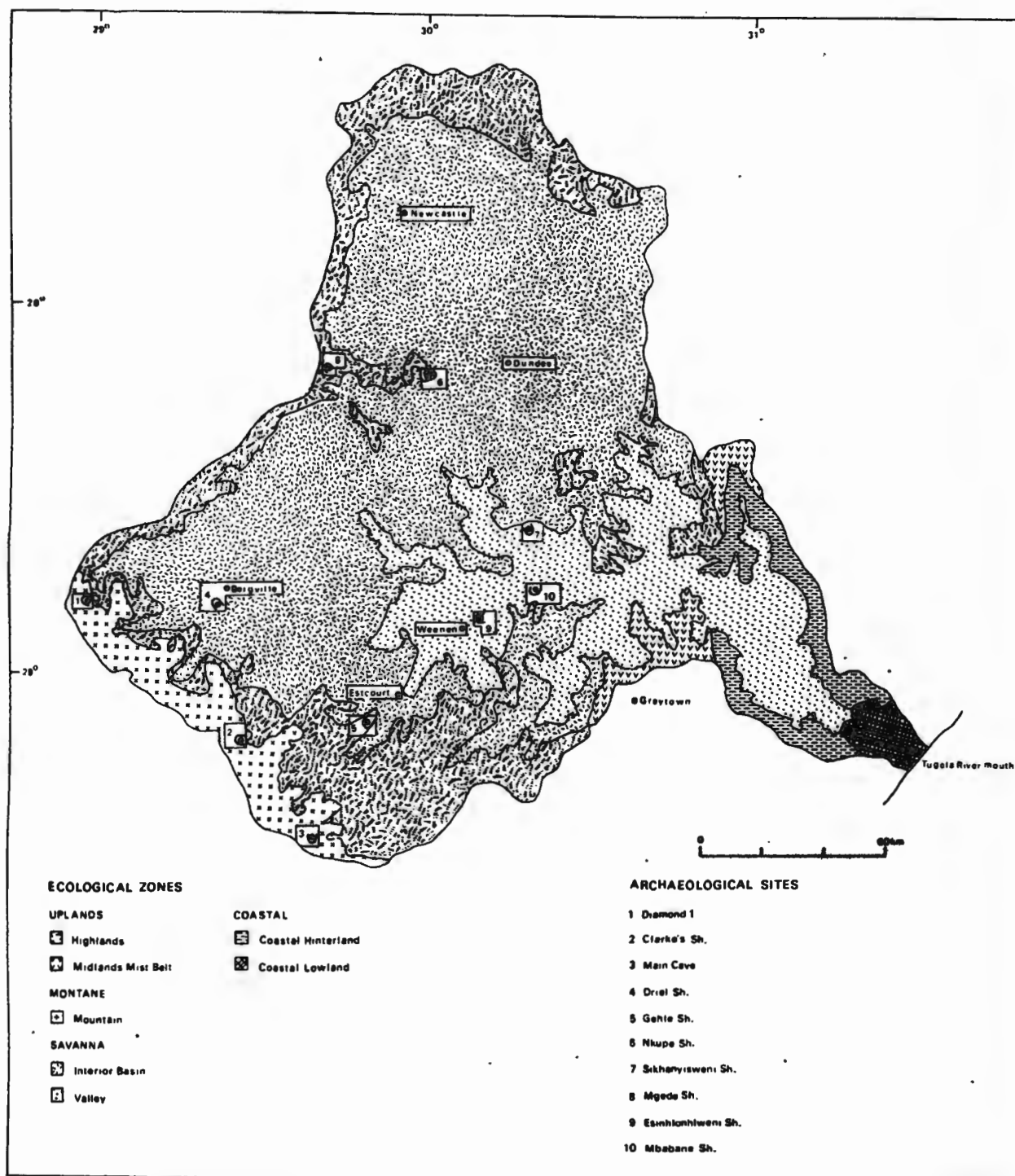


Fig. 1:4 Thukela Basin: ecological regions and site locations (after Edwards 1967).

Ecological Region	Temperature			Rainfall
	Mean Daily Maxima	Mean Daily • Minima	Frost-mths (Extremes)	Mean Annual
(a) <u>Coast Lowlands</u> 0-1500 ft	>25°C, >9 mths ca30°C, 2 mths	>10°C •	None (Light, rare)	1001-1250mm
(b) <u>Coast, Hinterland</u> 1500-3500 ft	25-28°C 6 mths	>(≤)10°C ¹	None to light	801-1250mm
(c) <u>Valley</u> Lower Interior	[>25°C, 8 mths and >30°C 2-3 mths	>6°C 0-3(>)°C. ² June, July	None to light 1(4) Moderate 0(1) Light 0-5(1-11) Mod. 0-4(0-6) Severe 0-2(0-4)	601-?1000mm 601-700mm
(d) <u>Interior Basins</u> Eastern Western 3000-4500 ft		>5°C 25-30°C 8 mths 0-3°C June, July	Light 4 (8) Moderate 0 (5) Severe 0 (2) Light 4-6 (6-8) Moderate 3-4 (5-8) Severe 0-2 (3-5)	601-1000mm
(e) <u>Midland Mist Belt</u> 3500-4500 ft	25-28°C 3 mths	>6°C	Light 3 (5) Moderate 0(4)	801->1500mm
(f) <u>Highlands</u> 4500-6500 ft	20-27°C 5-8-(10) mths ³	-3 to 5°C June, July	Light 5-8 (8-12) Moderate 2-6 (5-9) Severe 0-5 (2-6)	701-1500mm
(g) <u>Mountain</u> 6500-11000 ft	-	Surface soil regu- larly frozen in winter	Severe, at least 6 mths	1500->2000mm

1 Probably less than 10°C at extensive altitudes above 2000 ft
2 Over 3°C on extensive valley sides
3 10 months at exceptionally warm station - Cathkin Park

Table 1:1. Summary of principal climatic features of the Thukela Basin (after Edwards 1967).

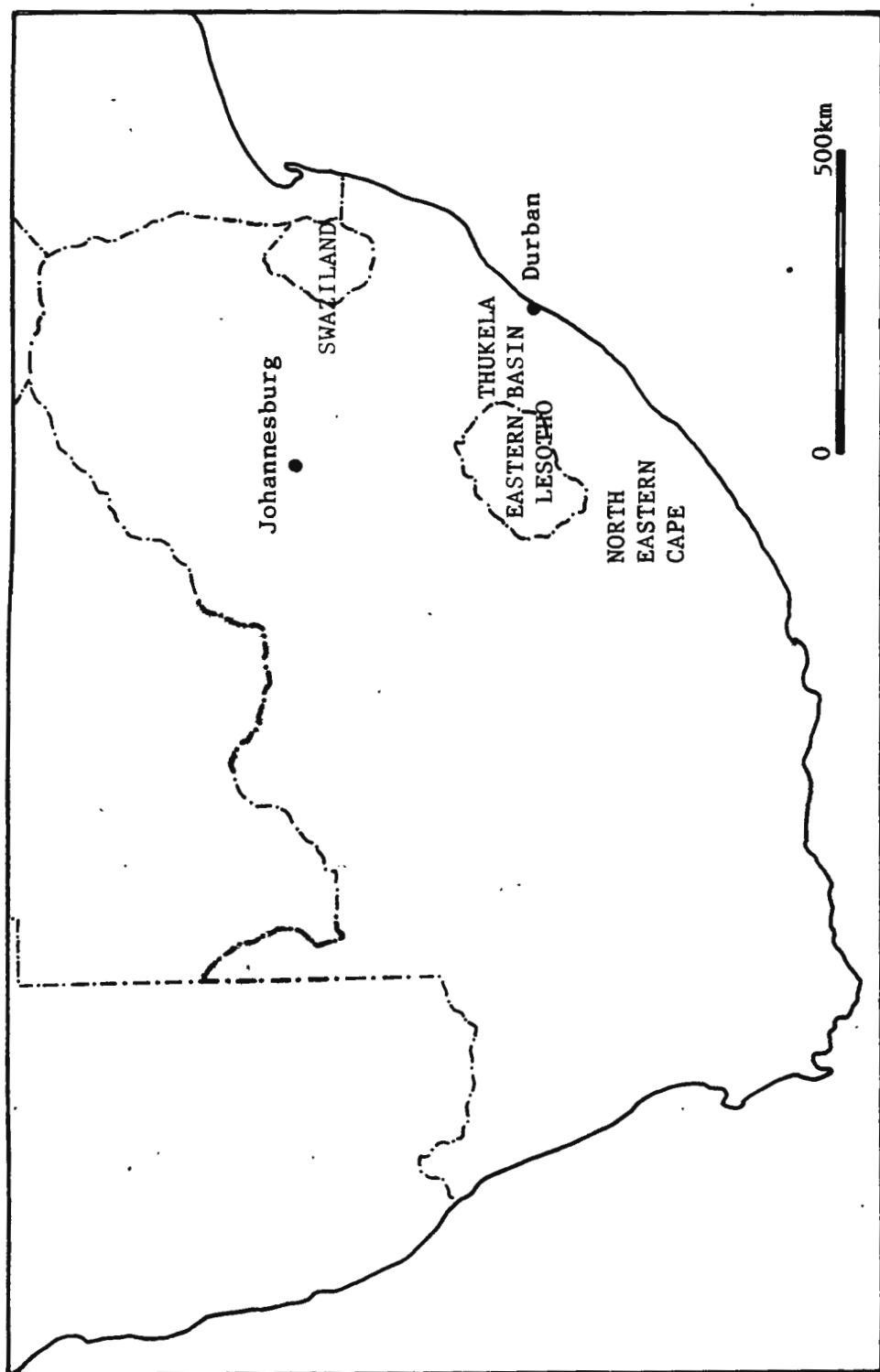


Fig. 1:5 Position of Thukela Basin in relation to Swaziland, Eastern Lesotho and the North Eastern Cape.

rainfall between 10 000 and 8000 BP. The North Eastern Cape and Swaziland palaeoenvironments are better known. Both areas experienced moist conditions during the past 3/4000 years. The North East Cape experienced a dry phase between 10 000 and 3/4000 years ago (Tusenuis 1985), whilst a drier phase has been suggested for Swaziland between 6000 and 3/4000 BP (Prior 1984; Prior & Price-Williams 1985). In both areas these drier phases succeeded more moist conditions. Though Prior & Price-Williams (1985) consider the Swaziland mid-Holocene dry phase to have begun around 6000 years ago, close examination of their report suggests that it may well have begun earlier. The artefactual material from the undated Siphiso Shelter Stratum 4 from which they derive the dry phase, is apparently akin to the Climax Wilton of J. Deacon (1972) (Prior & Price-Williams 1985). Material of this nature is dated back in the Thukela Basin to at least 6650 BP. The stratum underlying Siphiso Shelter Stratum 4 dates to 7600 BP. The dry phase may thus have begun sometime between 7600 and 6650 BP.

The macrofaunal data from the Thukela Basin excavations provide no evidence for palaeoenvironmental change. The Nkupe Shelter microfaunal data, on the other hand, suggests that the area surrounding this site experienced drier and more open conditions between ca 4250 and 3190 BP and more moist and more closed conditions between 3190 and 2480 BP (Avery pers. comm.). The Nkupe Shelter pre-4250 BP microfaunal assemblages were unfortunately too small to provide palaeoenvironmental information.

In summary, besides the discrepancy over the timing of

the onset of the early Holocene dry phase, there appears to be a close correspondence between the Thukela Basin, North Eastern Cape and Swaziland regions - they all experienced mid-Holocene dry phases which were succeeded 3/4000 years ago by more moist phases.

CHAPTER 2

THE ARCHAEOLOGICAL PAST FROM THE CHANGING PRESENT:
TOWARDS A CRITICAL ASSESSMENT OF SOUTH AFRICAN LATER STONE
AGE STUDIES FROM THE EARLY 1960s

In the introduction, I remarked that part of the reason for my theoretical reorientation from broadly speaking, an ecological approach to a social historical approach, relates to my criticisms of South African LSA research since the early 1960s. In this chapter, I present these criticisms and thereafter locate my current theoretical stance in a wider perspective.

South African LSA research appears to have arrived at a crossroad. Archaeologists can either continue to pursue the research aims and interpretations of the last twenty or so years, or they can change course. The former alternative entails continuing with a predominantly ecological approach. To do so will result in increasingly more sophisticated knowledge of past environments and subsistence practises but, it is submitted, it will prove inadequate in documenting and understanding the actions of past people themselves. An alternative approach which is still at an embryonic stage in South African LSA archaeology, and indeed is not much further advanced elsewhere in western world Stone Age studies, involves the application of social theory to the illumination and understanding of the archaeological record.

It is well known that archaeologists recover materially tangible items and establish distribution patterns. Moving from

these towards more meaningful insights into past social strategies and systems is a daunting task that requires an appropriate theoretical framework coupled with much skill and imagination. Such an approach has already begun to be applied with some success elsewhere, as for example by Bender (1985a, b), Gilman (1984) and Lourandos (1983, 1985a, b).

As part of the process of redefining South African LSA research, not only to take into account social and historical processes but indeed place a greater emphasis on these processes, it is imperative to arrive at a critical understanding of current and past research. This will, among other things, enable researchers to realise certain approaches should be reconsidered, and thus avoid certain biases and pitfalls that currently plague South African LSA studies.

LSA archaeologists in South Africa have for the last two decades been substantially influenced by developments in British and American archaeology. This impact is evident in both the research orientation and explanatory hypotheses. Any comment on developments in South African LSA archaeology during this time should therefore be accompanied by an understanding of British and American archaeology. The initial and crucial problem with which we are confronted is one of methodology - whether or not archaeology should be viewed as a natural science or as a social science. Notwithstanding the debate as regards the specific location of the discipline within either the natural or social sciences, it nevertheless can be demonstrated that ideas about the nature, scope and procedure followed in scientific investigation are themselves products of environments: not only intellectual but

indeed social, political and economic. It is arguable that all thought, and all social sciences, are moulded by the social milieu within which they are practised [see E.H. Carr's (1962) analysis]. Thus, British and American archaeology cannot be understood without locating them in their social and historical context, and this therefore becomes a necessary focus of this chapter.

As recently as 1982, Thomas remarked that archaeologists had not developed a critical consciousness of their discipline. Consequently, they are often unaware of the manner in which their approaches and interpretations may not represent their conscious beliefs and can be used in ways not intended by them. Archaeologists have arguably lagged behind other social scientists in developing a critical awareness.

Kohl (1981) discusses why American archaeologists did not participate in the self-critical debates that characterised political science, anthropology and history in the 1960s and 1970s. While the latter disciplines were re-examining their earlier traditions and questioning the possibility of value-free social science research, archaeologists were advocating vehemently the positivist goals of hypothesis-testing and objectivity as the salvation of their discipline (Kohl 1981:92). In addition, archaeologists appeared preoccupied with the improvement of methodological skills and with establishing general laws of cultural process and human behaviour.

This situation, however, has begun to change. Since the early 1980s, a growing number of western archaeologists have begun to evaluate critically the history and ideological underpinning of their discipline. They have examined the ways in which research

orientations and interpretations have been conditioned by the attitudes and aspirations of the dominant groups and classes (e.g. Gero 1985; Hall 1984a, b; Hodder 1983, 1984, 1985; Kohl 1981; Leone 1982; Meltzer 1981; Trigger 1980, 1981, 1984a, b).

Investigation of the nature of the past has been an important feature of these exercises: is the past a given and archaeology merely a neutral pursuit of what preceded us; or is it, as Leone questioned, 'to make the present look inevitable by making the past look like precedent for modern conditions ..?' (Leone 1982:750). To what degree does our modern archaeology create the past in its own image? It is virtually a truism that changing interpretations of the past are connected to altering values and concerns of archaeologists and contemporary society.

In achieving the objective of this chapter I focus on five themes; firstly, the social and historical context of post-War American and British archaeology; secondly, the development of South African LSA archaeology from the early 1960s; thirdly, criticisms of the dominant approaches in South African LSA studies during that time; fourthly, the need for archaeologists to develop a critical awareness of their discipline; and fifthly, locate the theoretical position I am advocating in the broader framework of hunter-gatherer archaeological studies.

AMERICAN AND BRITISH ARCHAEOLOGY SINCE WORLD WAR 2

"Any reconstruction of the past is a social statement in the present" (Hodder 1985:18).

The emphasis in this section is primarily on developments within the American archaeological tradition. This is not, however, to argue that British influences have been negligible or even unimportant. Firstly, it appears that the American tradition has since the early 1960s influenced British development (Trigger 1984b) and secondly that the American tradition has been the one which has most directly influenced developments within South African archaeology since the late 1960s.

While numerous commentators have referred to the social, ideological, political and economic impact on the development of American archaeology since the early 1960s, Kohl (1981), Patterson (1986) and Trigger (1980, 1981, 1984a, b, 1986) in particular, have tackled this subject comprehensively and thus I concentrate primarily on their insights. As emphasized earlier, my focus on American and to a lesser extent British archaeology, is conditioned by the understanding that recent South African LSA research has been almost entirely influenced by research trends in those countries.

It is not too difficult to understand why America has played such a significant, if not dominant role in Western archaeological research. The tremendous growth and prosperity that occurred in America following World War 2 confirmed America's position as the leading power among Western industrial capitalist states. It is arguable that the imperial mantle of Europe after World War 2 shifted to America and the significance of this is not only confined to a neo-colonialism but indeed also manifests itself in terms of an intellectual hegemony (Trigger

1984b:366 & 367).

The immediate post-World War 2 period in America was characterised by a great optimism which affected the social sciences no less than other aspects of society. The dominant influence on social studies was one of an ideology of positivism and behaviourism (Patterson 1986), which advocated the notion of science as being value free. Only later did this approach come to be questioned. In archaeology, evolutionary theory and studies achieved official sanction and encouragement in other parts of the world by the American government (Du Bois 1980). Du Bois in hindsight, questioned the neutrality of this research: "I am far from convinced that words like 'progress', 'development', 'evolution', etc. with their more or less hidden implications, offer reliable culture-free appraisals of human behaviour" (Du Bois 1980:8). A strong emphasis was placed on the view of evolution as being a rational process through which humankind achieved increasing control over the environment and greater freedom from nature (Trigger 1981). Consequently, technological development was viewed as natural and positive. In Britain, which in the wake of World War 2 experienced many hardships, the same optimistic outlooks were not reflected, and neo-evolutionary studies made less of an impact (Trigger 1981).

American optimism was soon to be curtailed . By the late 1960s, the severe crisis which America, and indeed Western society experienced, was marked by a crisis within behaviourist and positivist philosophy, as well as by the reception of new ideas, specifically those of a Marxist epistemology. Murphy commented that 1968 is

'as convenient a marker as any as the end of the age of optimism and innocence in the American University. It was a time of collapse of a vision of indefinite progress in the ultimate rationality of society, if not of man' (Murphy 1977:14).

There was increasing pessimism about the ability of humans to control technological development and indeed, their destiny. Furthermore, the sustained economic growth of the post-War period broke down in the late 1960s, and the state was confronted by protests at home and revolutions abroad and the increased productivity of western Europe and Japan (Patterson 1986).

A number of middle class movements emerged in the wake of these developments. Trigger (1981:149) believes that, although these movements have not come directly to grips with the crucial political and economic problems, they have deeply influenced social values as well as the social sciences. The largest, and certainly most vocal, was the ecology movement. It was 'launched' by Rachel Carsons's book 'The Silent Spring' in the early 1960s (Croall & Rankin 1981), and highlighted the dire consequences of uncontrolled environmental pollution and degradation. There was also the realisation that the limited reserve of raw materials would severely impede industrial development and, in turn, herald a decline in living standards. Later in the decade, attention was focused on another related anxiety, that of population growth. In response to these issues, social scientists and the general public began questioning the advantages of technological progress. Cultural evolution was viewed as a source of danger and perhaps ultimately of disaster (e.g. Bennett 1975:295). This pessimistic attitude still prevails among the many social scientists and, interestingly, Watson's opening sentence in her editorial to the

50th Anniversary volume American Antiquity, was: "The fiftieth anniversary of anything humanly created is an event worth noting, especially in the troubled and uncertain world we now inhabit" (Watson 1985:227).

Trigger (1981) has argued that the conceptual reorientation that started within archaeology and anthropology in the late 1960s in America and Britain was stimulated by these changing attitudes. These influences are clearly visible in important publications, for example, Lee and De Vore's (1968a:3) opening essay in "Man the Hunter" and Bicchieri's (1972:iii) preface to "Hunters and Gatherers Today". Hassan (1981:xi) in his book, "Demographic Archaeology" links the increased focus on demographic studies to a concern over the rampant growth in world population. Kohl has commented on the link between the abovementioned social and demographic concerns and archaeological research, that

So today, the dominant materialist models stressing environmental mismanagement or the inevitability of long-term population growth mirrors the difficulties of the contemporary world as advanced nations attempt to obtain scarce resources and control the number of people on spaceship Earth" (Kohl 1981:92).

According to Trigger (1981), Boserup's (1965) "The conditions of agricultural growth" and Lee and De Vore's results on population and production amongst the Kalahari hunter-gatherers (Lee 1965; Lee & De Vore 1968a), acted as catalysts for change in anthropology and archaeology. Central to both these studies was the view that population growth was an independent variable influencing cultural change. The increasing popularity of the ecological and demographic models saw the rejection of the view

that technological innovation is an independent process of rational self improvement and the guiding force behind cultural evolution. Instead the conservative nature of human society was stressed, as well as the notion that changes in cultural systems only occur in response to external stimuli. Human beings were viewed as helpless victims of processes over which they had no control, with consequences not necessarily to their advantage. As Binford, considered by some (e.g. Renfrew 1983; Parkington 1985) to be the most outstanding archaeological thinker of the century, has recently commented, the "system will remain stable until acted upon by forces external to its organisation as a system" (Binford 1983:221).

Furthermore, Patterson (1986), Hodder (1985) and others have also stressed the connection between the application of systems theory in archaeology, and other disciplines for that matter, and the turmoil and uncertainty which America and the western world was faced with in the late 1960s and early 1970s. Hodder argues that the "concepts of systems theory relate to a social interest in technical control in the modern west" (Hodder 1985:20) and he also cites Lillienfield who remarked that systems theory was the "ideology of the administrative intellectual" (Lillienfield 1978:262). Similarly, Patterson (1986:10) cites Gouldner who argues that systems theory is the "natural ideology of bureaucratic planners and centralizers" (Gouldner 1979:42).

In summary, from the early 1960s onwards much social emphasis has been placed on ecological degradation and rapid population growth. This has clearly had a substantial impact on archaeological research orientations. Furthermore, the crisis

experienced by America and the western world from the 1960s onwards had influenced the adoption of systems theory by archaeologists, which is believed by some to be related to the administrative control of people.

The final topic which I would like to consider briefly is the impact which negative Euroamerican perceptions of the native American past had, and continue to have, on archaeological research. The development of colonial perceptions of Native Americans from the late eighteenth century to the present has been traced by Trigger (1980). Native Americans were seen to have no real past prior to the arrival of the colonists. While this belief has fallen away, the Native American past is generally still not viewed by Euroamerican archaeologists as a subject worthy of study in its own right. Since the early 1960s, the ultimate aim of American archaeological endeavour has been the generation of lawlike propositions about human behaviour and cultural processes. Though seemingly objective, they generate the same prejudices that were evident in colonial times because Native Americans, and their past, are treated as mere objects of research rather than subjects of research; as Trigger comments "they [the Native American and data concerning them] are employed in a clinical manner to test hypotheses that intrigue professional anthropologists and to produce knowledge that is justified as serving the broader interest of Euroamerican society" (Trigger 1980:671). Negative attitudes towards the Native American past are further reflected in the types of explanations proposed for cultural changes. Changes are invariably seen as externally stimulated. Before the early 1960s, diffusion and migration were commonly used as explanations, but

these were now replaced by explanations evoking environmental and demographic causes. Thus, not only does it appear that Native American history in its own right remains less important, but that it is also denied internal creativity and innovation.

SOUTH AFRICAN LSA ARCHAEOLOGY FROM THE EARLY 1960S

South African LSA archaeology has experienced a radical transformation in the last two decades. A comparison of Inskeep's (1967) "The Late Stone Age", written in 1965, with Parkington's (1984a) "Changing views of the Later Stone Age of South Africa" shows this clearly. Inskeep (1967) was primarily concerned with culture-history classificatory schemes, while Parkington (1984a), although devoting some time to terminological frameworks, is clearly more interested in ecological phenomena, hunter-gatherer subsistence strategies, palaeoenvironments and stone tool assemblage variability.

The 1960s represent a period of major reorientation of South African LSA studies. The culture-history approach of the previous 30 years was by and large abandoned, and a more problem-orientated, environmentally and ecologically focused research, with a regional rather than site focus, was introduced. The initial stimulus was provided by J.D. Clark's (1959) "Prehistory of southern Africa", in which he stressed the influence of environment on the archaeological record. J.D. Clark (1959) viewed the relationship between humans and their environment in terms of specialisation. H.J. Deacon commented that although this

concept never provided new insights into the understanding of the LSA, 'we owe to Clark the suggestion that the end Pleistocene and post-Pleistocene industries might be examined within a framework of adaptations' (Deacon, H.J. 1972:28).

While J.D. Clark (1959) provided the initial indication that research could be profitably focused on issues other than culture-history, it was Inskip, arriving in South Africa in 1960 to head the Archaeology Department at the University of Cape Town (UCT), who, more than anyone else, was responsible for redirecting the focus of LSA archaeology. Inskip had formerly been an assistant lecturer in the Department of Archaeology, Cambridge University, where, with the formidable combination of J.G.D. Clark and E.S. Higgs, the study of 'man-land' relationships within an inter-disciplinary framework was ascendant (Clark, J.G.D. 1972; Murray & White 1981). On his arrival in South Africa, Inskip stressed environmental research and was instrumental in initiating inter-disciplinary research groups (Maggs pers. comm.). As Inskip himself commented, 'we may study the physical, technological and economic development of man; the changing climates, and the changing fauna of our part of the continent ...' (Inskip 1961:227).

Added impetus for the investigation of 'man-land' relations was provided by anthropological research among the Kalahari hunter-gatherers, in particular that of Lee (1965). Parkington, a Cambridge student who trained under Higgs, arrived in South Africa in 1966 to take up a teaching post at UCT, and he appears, more than others, to have been influenced by Lee's work (e.g. Parkington 1972, 1977a; Parkington & Poggenpoel 1971). The 'man-land'

approach can be seen in the research of H.J. Deacon (1967, 1969, 1970), whilst a residual culture-history emphasis is best exemplified in the research of Sampson (1967a, 1967b, 1970). However, by the end of the decade, with the completion of Sampson's Orange River Scheme project, the environmentally and ecologically orientated approach had almost completely replaced the culture-history approach.

Two aspects of the 1960s require emphasis. Firstly, during this time, inspiration was drawn primarily from Britain. Secondly, the main concern of LSA research was the description and understanding of temporal changes in the archaeological record, with "man-land" relations used as the primary explanatory device. Concerning the first point, the British connection is reflected in Inskeep's continued influence and the arrival in South Africa of British trained archaeologists such as Seddon, Parkington, Derricourt and Carter, as well as J. Deacon's (1969, 1972) use of D.L. Clarke's (1968) cultural system ontogeny scheme.

Before proceeding to the 1970s and 1980s I would like to focus briefly on some of the environmentally orientated research of the 1960s, and from now on I will concentrate on the work of H.J. and J. Deacon and Parkington. While Inskeep was initially instrumental in redirecting LSA research, since the late 1960s/early 1970s H.J. and J. Deacon and Parkington have led South African LSA studies. Together with their students, they have been responsible for the majority of LSA research conducted in the country. Thus, a focus on their work will provide an overview of the major trends in LSA research during the period under review.

H.J. and J. Deacon's (1963) report on the rescue excavation

at Scott's Cave heralded a break with previous lithocentric site reports. The 'economy of the LSA people' became a focus of study, and research into plant remains was initiated with a view to ascertaining the seasonal occupation of the site. In the same year H.J. Deacon embarked on the 'Prehistory of the Eastern Cape' research project, with the aim being 'primarily to evaluate museum collections and to build on the researches of Hewitt' (Deacon, H.J. 1976:2). From the outset H.J. Deacon (1976) purposefully moved away from the lithocentric approach that had characterised previous LSA research, and concentrated on floral and faunal studies. The recovery of large quantities of plant remains from the excavations at Melkhoutboom Cave in 1967 drew him further in this direction. Reporting on these excavations, H.J. Deacon (1969) used the ecological concept of adaptation to interpret human behaviour. As in the Scott's Cave report, the hypothesised seasonal movement of the hunter-gatherer occupants of this cave was discussed.

J. Deacon used a theoretical proposition of D.L. Clarke's (1968) in her M.A. thesis, completed in 1969 (Deacon, J. 1972). She applied a cultural system ontogeny model to the artefact sequence at Wilton Large Rock shelter. According to this scheme, a cultural system underwent five phases from threshold to decline. An environmental flavour was given to his essentially evolutionary technological development scheme, with cultural development closely aligned to environmental and subsistence parameters.

In the late 1960s, Parkington chose the southwestern Cape as a research area and excavated the De Hangen rock shelter, hoping to find a deep sequence to serve as a reference sequence for the

area. As it turned out, the deposit was shallow, but organic preservation and intra-site spatial patterning were its compensatory features (Parkington 1977a; Parkington & Poggenpoel 1971)). These factors were instrumental in re-orientating Parkington's research, as will be elaborated later.

The 1970s and early 1980s witnessed the entrenchment of environmentally and ecologically orientated research. Research emphases, it is submitted, generally shifted from the description and understanding of temporal changes in the archaeological record, to generalisations about human behaviour and cultural processes, as well as past environments. This is not meant to imply that researchers lost interest in temporal change, but rather, that the archaeological record by and large switched from being an object of research to the subject of research. In other words, the human past was not something to be understood in its own right but rather a medium through which to tackle other problems.

The years 1971 and 1972 stand out as a watershed in the development of South African LSA archaeology. In 1971, a conference was held on the interpretation of archaeological evidence by the newly formed South African Association of Archaeologists (SAAA). In the same year, H.J. Deacon (1979) embarked on his study of late Quaternary environments and human adaptations in the southern Cape, whilst Parkington and Poggenpoel (1971) published the De Hangen excavation report. In the following year, the proceedings of the SAAA Conference were published (South African Archaeological Society, Goodwin Series 1) and Parkington (1972) published his seminal paper 'Seasonal mobility in the Late Stone Age'. These events set the scene for the theoretical and

methodological orientations of the following decade. Inskeep captured the spirit of the time in his introduction to the Goodwin Series volume:

"In recent years many archaeologists have shown an increasing concern with the theory of archaeology, attempting to seek a generally acceptable definition of its true functions. The question has been posed: 'is it to do with a kind of narrative history, or is it a brand of anthropology?' Should it not, instead of describing isolated events or sequences of events, be searching for 'general laws' relating to human behaviour? Indeed, it has been proposed that archaeological research should be directed by the rules of 'explanation' as used in the natural sciences. Although these matters are being hotly debated, and are by no means settled, they are of the greatest importance to archaeologists, and what one does with archaeological data once they have been secured, must be influenced by what one believes one is trying to do' (Inskeep 1972:2).

In the early 1970s, but with its roots in the late 1960s, the primary inspirational source of South African LSA archaeology switched from Britain to America. Study of the Deacon's and Parkington's references show that D.L. Clarke, J.G.D. Clark and Higgs are the only British archaeologists listed with any consistency during the 1970s and 1980s, whilst the Americans include, among others, L. and S. Binford, Braidwood, Dunnell, Gould, Lee, Trigger and Sackett. It was also during the 1960s that British archaeology itself came increasingly under the influence of the American 'new archaeology' (Trigger 1984b:367).

Since the early seventies, H.J. Deacon (1979) has expanded his study of late Quaternary environments and human adaptations in the southern Cape. He included research on the relationship between population size and distribution and palaeoenvironments in southern Africa over the last 125 000 years (Deacon, H.J. 1979; Deacon, H.J. & Thackeray, J.F. 1984). He

has also been involved in the Fynbos Biome Project, with a particular interest in the vegetation history of the Fynbos (Deacon, H.J. et al 1983). During this period J. Deacon's (1978, 1982) research focused on the technological changes of the last 20 000 years in the southern Cape, with the primary goal being the description, quantification and correlation of temporal changes.

Although Parkington's initial aim of obtaining a deep cultural sequence for the southwestern Cape was frustrated by the shallow deposit at De Hangen, study of the abundant organic remains suggested summer occupation by hunter-gatherers (Parkington 1972; Parkington & Poggenpoel 1971). From about 1971 to 1976, Parkington's research focused on hunter-gatherer seasonal mobility in the southwestern Cape (Parkington 1979:9). From 1977 to 1981 he concentrated mainly on three themes; firstly, research in the Olifants River Valley as part of his goal of understanding "man-land" relations between the Karoo and the Atlantic coast (Parkington 1978); secondly, "tracing changes in the pattern of resource exploitation and inter-relations between palaeoenvironmental change and human subsistence strategies" in the Verlore Vlei area and immediate environs (Parkington 1979:9); and thirdly, together with Mazel and others, the study of artefact variability in differing ecological zones (Mazel & Parkington 1978, 1981; Parkington 1980). In 1981, Parkington established the Spatial Archaeology Research Unit with the objective of exploring "the spatial dimensions of archaeological data, using as a starting point, the research base already established for the later prehistory of the Western Cape

region" (HSRC Research Bulletin 1985:3).

Next, the assumptions underlying the Deacons' and Parkington's research and interpretations are examined. The primary objective of this exercise is to investigate their views on human-environment relations and the primary causes of change in the archaeological record.

Reporting on De Hangen, Parkington commented that "first of all it is worth examining the environmental framework which must have patterned the movements of hunting peoples" (Parkington & Poggenpoel 1971:29 my emphasis). This assumption, and the related notion that movements of hunter-gatherers can be predicted from detailed study of the resource base of an area, underlay Parkington's seasonality research. He eventually extended his model from De Hangen in the mountains to include the area between the inland Karroo and the coast (Parkington 1972, 1977a, b). Tied in with this research was the view, inspired by Lee's earlier work among the !Kung, that hunter-gatherers have a tendency to maximise exploitation of their environment. Parkington (1972) also constructed a hypothetical model for predicting hunter-gatherer social structures at any one time and place if we are able to specify "(a) the common structure of hunter-gatherers, and (b) the particular environmental sieve through which it must pass" (Parkington 1972:2). However, this has never been attempted.

In a general review of the post-Pleistocene LSA in South Africa, H.J. Deacon (1972:26) adopted the approach suggested by Bews, that the "student of man and his works, whether he calls himself archaeologist, ethnologist, anthropologist ... or what

you will, would do well to become more of an ecologist and try and adopt more the general viewpoint" (Bews 1931:11). Not all the important aspects of Deacon's review can be cited, but I would like to draw attention to his use of the concepts of 'stability' and 'adaptation' and the contradictions concerning the reasons for changes in the archaeological record. In addition, I want to highlight his suggestion that social organisation is determined by ecological parameters and therefore can be predicted by their identification.

While cautioning against viewing all noted trends merely as adaptations to environmental fluctuations, H.J. Deacon (1972) only presents 'adaptive behaviour' and related concepts in explaining cultural change. For example, the 'stability' of the post-Pleistocene 'adaptation' is thought to have resulted from the stability of the palaeo-ecosystems of which the hunter-gatherers were part (Deacon, H.J. 1972:39 & 40). While adherents of the ecological approach warn against 'oversimplistic' environmental determinism and 'one-to-one causal' relationships, closer examination shows that these are the positions ultimately adopted. This contradiction is apparent throughout the 1970s and early 1980s.

With regard to the social organisation of the pre-Wilton (Albany) hunter-gatherers, after noting that the pre-Wilton and Wilton groups hunted a different range of fauna, H.J. Deacon commented that this 'suggests rather different hunting methods were used, and indirectly a different organisation to adapt to this pattern of hunting, essentially substantiating Hewitt's suggestion of different lifeways' (Deacon, H.J. 1972:34).

In his final report on the 'Prehistory of the Eastern Cape' project, H.J. Deacon (1976) continued to view ecological parameters as positive determinants of human behaviour. The aims and scope of this report is in some respects firmly lodged in the 'man-land' approach of the 1960s. This is not surprising as the project was initiated in 1963 and this report is based in part on a doctoral thesis completed in 1974 (Deacon, H.J. 1976:iv). The view adopted by H.J. Deacon was that 'at the hunter-gatherer level with a direct relationship between man and the environment and relatively simple energy flow patterns involved, the biological systems approach is a useful one' (Deacon, H.J. 1976:11). The biological systems approach he adopted is that of punctuated equilibria, where periods of stasis (which have the ability to incorporate adjustments) are bracketed by periods of rapid change. In his application of this model to the eastern Cape, the periods of stasis and rapid change are caused by, and thus reflect, associated environmental conditions. Besides this aspect, H.J. Deacon restates and elaborates many of his previous arguments and some new ones are also added; for example, that the suggested west-east temporal spread of the Wilton Industry along the Cape Folded Mountain Belt was related to the grass element present in the vegetation cover.

The primary concern of Parkington's (1977a) doctoral thesis was the seasonality of the south-western Cape LSA hunter-gatherers. Underlying this work are assumptions similar to those first outlined by him in the early 1970s. Parkington (1977a) also focused on Holocene hunter-gatherer 'adaptations'. While differing with H.J. Deacon on whether the Albany Industry

represents a "stable plateau" or is a "transitional phase", Parkington agrees with H.J. Deacon (1972, 1976) that the early Holocene technological changes were environmentally induced and that the microlithic Wilton Industry "represents a successful adaptation to the post-Pleistocene conditions of the eastern Cape, and by extension to other parts of the Cape" (Parkington 1977a:216).

In interpreting the 18 000 - 5000 BP lithic assemblages from the Nelson's Bay Cave, J. Deacon (1978) adopted a biological systems approach, her application thereof mirroring that of H.J. Deacon's (1976). She integrated it with the cultural systems ontogeny model which she (1969, 1972) had used to describe the Wilton Large Rock Shelter artefact sequence. After illustrating how these two models could be coupled, they were not discussed further, and Deacon attended to the relationship between technological trends and environmental fluctuations in general terms. Technological changes were viewed as part of a twofold process; firstly, a response to external environmental stimuli, in which environmental changes may precipitate rapid adjustment of previously stable adaptations (Deacon 1978:104); and secondly, that the direction of change was guided by the selection of a range of possibilities offered by the existing LSA technology. Concerning the latter process, J. Deacon remarked that the "scale and direction of these artefacts changes ... would have varied from one geographic region to another depending on the magnitude of environmental change and the adjustments in life-style necessitated by such a change, as well as the nature of the stone tool technology prevalent at the time" (Deacon, J.

1978:108 my emphasis). In essence, environmental factors were viewed as being responsible for initiating technological changes, and partly responsible for the scale and direction these changes took.

Parkington (1980) criticised H.J. Deacon's punctuated equilibria model on the grounds that it played down the dynamic changes that characterize the LSA archaeological record of the last 20 000 years. Instead, Parkington (1980) suggested that there had been 'more or less continuous change' during this period, as people responded to changing resource potentials brought about by environmental and demographic changes. As Parkington remarked, 'The resource changes would surely have had the effect of persuading prehistoric populations to modify their strategies in a series of short term adaptations to immediate problems' (Parkington 1980:82). Inspired by Cohen's (1977) work on the effects of population pressure, Parkington (1980) adopted the notion that population growth was an independent variable stimulating cultural change. After listing the various choices available to people faced with an increasing population, Parkington (1980) chose the 'work harder' option, whereby people increase their exploitation of previously less favoured foodstuffs. Despite Parkington's criticisms of the systems model, H.J. Deacon (1980) and J. Deacon (1980) have continued to regard it as the best way of understanding the archaeological record of the last 20 000 years.

In her doctoral thesis J. Deacon (1982), dealt with technological changes over the last 20 000 years in the southern

Cape. Her assumptions about the role of technology and reasons for technological changes are outlined at the outset:

"We assume that technology represents one of the ways in which people have adapted to their environment and some aspects of technology are therefore expected to be influenced by external factors similar to those that control biological adaptations. The key concepts in the study of biological evolution are adaptation and selection and the questions of interest in the study of diachronic changes in stone tool technology are the significance of the selections made from the range of possibilities available, and the ways in which these selections helped people to adapt their behaviour to changing environmental and social conditions" (Deacon, J. 1982:3).

"Adaptation" and "selection" are thus key concepts, although technological development, stimulated by evolutionary momentum within the technological system, is later introduced as another criterion capable of precipitating change.

In order to identify the nature of changes in the technological record, J. Deacon (1982:349), inspired by biological theory, formulated the concepts of innovative and post-innovative change. Innovative change refers to the introduction of new items or the new combination of old items, whereas post-innovative changes are changes in artefact frequencies and styles. The former "mark stages in the evolution of technological systems which have a momentum of their own", whilst post-innovative changes "seem more susceptible to regional changes in environment ... but probably reflect social and demographic adjustments" (Deacon, J. 1982:467).

Although the punctuated equilibria model was still regarded as the most suitable for understanding "post-innovative changes", J. Deacon's thinking had altered regarding what forces precipitate innovative change. In her 1978 paper, changes of

this nature had been seen as being stimulated by environmental disruptions of a "stable adaptation" whereas they were now viewed as the products of momentum. However, we are not enlightened on the possible causes of this technological evolutionary momentum, and are left with the impression that this aspect of technological change is an independent variable, unconnected to the internal workings of society.

Reflecting back on the last two decades of South African LSA archaeology, a clear trend emerges in the approaches employed. It began with the focus of research moving away from culture-history to "man-land" relations, and includes J. Deacon's use of the evolutionary, cultural systems ontogeny, H.J. Deacon's punctuated equilibria model derived from biological systems theory, as well as Parkington's use of the demographic model of Cohen (1977). All three scholars emphasise the ecological concept of "adapting to the environment". These developments follow in the wake of identical trends in British and American archaeology and clearly this link is not coincidental, especially as it was argued that the primary inspiration for South African LSA studies was drawn from those two countries. The rather uncritical adoption of these approaches has had a variety of consequences.

CRITICAL ASSESSEMENT OF THE DOMINANT APPROACHES IN SOUTH AFRICAN LSA ARCHAEOLOGY FROM THE EARLY 1960s

The preceding overview has shown that the last two

decades of South African LSA archaeology have been dominated by ecological and demographic approaches, relying strongly on biological concepts and models. The close connection between the archaeological practices in America and Britain since World War 2 and the social milieu which fostered them was also illustrated. We are now in a position to look critically at South African LSA studies conducted since the early 1960s. Unlike the previous two sections where the discussion was chronological, the following is thematic.

Despite the criticisms that follow, there is no doubt that South African LSA archaeologists made tremendous strides during the period under review. Indeed, it was during this period that LSA archaeology became a truly professional endeavour.

The first, and perhaps the most critical, issue that requires investigation is the applicability of ecological and biological theory to the study of humans and human society. This is, in fact, at the very heart of the problem. Can human behaviour be equated with animal behaviour? Many people have felt not. Over one hundred years ago Marx commented that men "can be distinguished from animals by consciousness, by religion or anything else you like" (quoted in O'Laughlin 1975:346). Woolfsohn (1982) has stressed the uniqueness of humanity and in a carefully constructed argument has shown how human behavioural patterns are unlike those of animals. In particular, he has drawn attention to human social labour and its inter-connectedness with the development of speech and toolmaking, which, in turn, are articulated with conceptual

symbolic and reflective behaviour. It is through these means that humans interact with the natural environment, and this would undoubtedly apply to LSA people.

Thus the applicability of ecological and biological theory to the interpretation of the functioning of past human society must be called into question. Bennett (1975:279) has proposed, and I think correctly, that the use of ecological analysis and ecosystematic concepts in the study of human affairs is only valid when biological or natural phenomena are the primary factors of analysis, for example, the study of diseases.

The application of ecological and biological concepts in archaeology has been directly responsible for casting humans into the role of rational, passive actors, or, as Tilley (1981b) remarked, helpless spectators always subject to external forces. In other words, the stimulus for change is invariably located outside humans and their society (Friedman 1982). Miller (1982) believes it is the application of deductivistic principles in archaeology that has led to an essentially passive conception of humans. As he explains:

"Since deductivistic principles provide legitimation, and adaptive relations are the only forms that have been found compatible with them, we find in modern archaeology a tendency to claim explanation, only insofar as it can claim to have shown adaptation, and all other "cultural" bases for explanation are resorted to in the last instance" (Miller 1982:85).

The above comments clearly apply to South African LSA studies. People are seen as merely "adapting" or responding to factors beyond their control, and changes in the archaeological record are viewed primarily as being stimulated by fluctuating environmental and demographic circumstances. I should add that

whereas J. Deacon (1982) does not regard 'innovative' changes as environmentally related, suggesting that they are stimulated by evolutionary momentum within the technological system, she does not elaborate on how this occurs. Acknowledgements of human creativity, or that changes are linked to the internal workings of society, are conspicuous by their absence.

A case in point are the attempts made to predict social organisation from environmental and ecological parameters. I should add that endeavours of this nature have generally been of peripheral concern. This can be regarded as another criticism of both the foci of research and the explanations of perceived changes. Parkington (1972) provides a model for predicting social organisation given the common structure of hunter-gatherer society and the specific environmental sieve through which they must pass, whilst H.J. Deacon (1972, 1976) and J. Deacon (1982) attempted to determine social organisation by relation to past environments and some of the habits of the animals that people hunted. Parkington has never attempted to apply his model and has only recently (Parkington 1984b) begun to focus again on social phenomena, whereas H.J. and J. Deacon have not focused on these phenomena. Social forms, when considered, have therefore been viewed as epiphenomena to environmental factors and human adaptive processes.

Although H.J. Deacon attempted to determine social organisation by reference to ecological parameters, he, more than the others, attempted to relate the archaeological record to a social reality (Deacon, H.J. 1976:169-173). Not only did he construct a hypothetical social hierarchical scheme based on

ethnographic analogues, but he also submitted, on the basis of artefact stylistic variability, that his two sites, Melkhoutboom Cave and Highlands Rock Shelter, "represent some major divisions in social and linguistic terms" (Deacon, H.J. 1976:169). Furthermore, he (1972, 1976) suggested that the Albany and Wilton hunter-gatherers may have had different forms of social organisation adapted to different patterns of hunting.

Notwithstanding this, a general avoidance of issues of social organisation and strategy in LSA research characterises the 1960s and the following period. While this can be partly attributed to the difficulties of reaching meaningful insights from the scraps of material recovered by archaeologists, it is, more importantly, a result of the very nature of the archaeological research. This research has been conducted within the framework of people-to-nature (i.e. ecological terms) and not in the people-to-people framework (i.e. social terms) (Bender 1985a).

The concept of "adaptation" is central to ecological and biological theories and consequently it has been at the core of interpretations in South African LSA archaeology. However, its applicability to the study of people, both in terms of their social interactions and interactions with the natural environment, is severely flawed. Bargatzky (1984) has devoted an entire paper to exposing what he terms the "ills of adaptationism." Burnham, already in 1973, remarked that this concept was "such an article of faith that there is seldom serious consideration of what is meant by the phrase "cultural adaptation" (Burnham 1973:93). Despite the increased questioning

of the usefulness of this concept, it has by and large remained an article of faith in South African LSA studies.

A presentation of the full range of criticisms of the adaptation concept is beyond the scope of this study. I will therefore mention the more serious ones. Both Tilley (1981a:136) and Thomas (1982:170) have pointed out that to say that a system or institution is adaptive is not to say very much since any extant society or institution is by nature adaptive. The view that adaptation is the primary motivating force for change also needs to be criticised. As has been often pointed out, this is to treat the consequence as a cause (Faris 1975). And as Friedman commented, "by extension to its teleological meaning 'function' becomes 'adaptive function' ... and we are left with what is basically a description of imaginary relations where 'function' is assumed rather than demonstrated" (Friedman 1974:57).

Nowhere are these criticisms more apt than in the treatment of the period 20 000 - 8000 BP, which includes the Robberg and Albany Industries. Both H.J. and J. Deacon have argued that these industries mark adaptive plateaux. According to H.J. Deacon "their nature and duration are determined by the goodness of fit between behavioural responses and palaeoenvironmental changes at the end of the Pleistocene" (Deacon, H.J. 1979:244). Parkington (1980, 1984b), while disagreeing with the Deacons on the nature of changes in the archaeological record, agrees that changes are adaptive responses to external forces. Both explanations suffer from the deficiencies outlined above and are also amenable to another

general criticism of the ecological approach; even in their most modest form, ecological explanations dissolve into pure description (Friedman 1974). Thus, with regard to the "adaptiveness" of the Robberg and Albany Industries, we have been presented with a "description of imaginary relations where 'function' is assumed rather than demonstrated" (Friedman 1974:457). In this respect, it is interesting to note that Parkington, commenting on the popularly held belief that the Robberg Industry was an adaptation to big game hunting, noted that, "for what it is worth, there is little in Robberg assemblages to inspire confidence in a big-game hunting orientation - no obvious missile heads and an assemblage pattern in which the details of flake removal are far more visually dominant than any formal element" (Parkington 1984a:127 & 128).

The above criticisms apply equally to the way in which the systems model has been applied by H.J. and J. Deacon. In addition, I would like to add two specific criticisms. Parkington (1980:81, 109) has already argued that the punctuated equilibrium model plays down the dynamism of the archaeological record, and Bennett (1975:278) has questioned whether, given the dynamism of social systems, anything can be achieved by using the systems approach. Thus, even though H.J. Deacon (1980:87) comments that the concept of punctuated equilibria includes changes at the level of adjustments, the underlying assumption is of stasis. It is therefore inapplicable, given the dynamism of social systems - the products of which constitute the archaeological record. A related criticism of the systems approach is that it is unable to explain the genesis of a system,

or its subsequent transformations (Bender 1981, Kristiansen 1984). This criticism is accepted by many who propose that systems theory analysis might be useful in understanding the internal workings of a social system. In the South African LSA context, it has been used to describe and interpret change.

It is also cogent at this point to be reminded of the earlier discussion where, following Hodder (1985), Patterson (1986) and others, it was suggested that system theory is not simply a neutral intellectual tool, but relates to the administrative control of people.

Many criticisms of the ecological approaches are equally applicable to the demographic model, which argues for population pressure as an independent variable precipitating cultural change. Specific criticisms of this model are also numerous and convincing; for example, see Bender (1975), Bronson (1975), Cowgill (1975a) and Hassan (1981). Hassan (1981:163) had summarised the main arguments against this hypothesis in a series of 10 points. I cannot cover them all here, but mention the most important; namely, that population increase is linked to socioeconomic and cultural factors, and therefore cannot be viewed as an independent variable causing change. In this regard, Hassan (1981:143-166) has devoted an entire chapter to the numerous cultural methods used by humans for population regulation.

The final item to be addressed, and perhaps one of the most important, is the ahistorical orientation of much of South African LSA archaeology. This phenomenon began in the late 1960s and early 1970s and corresponds with the switch of deriving

inspiration from Britain to America. Many of the questions and interpretations pursued by American archaeologists were taken up by South African archaeologists. This, together with the increased emphasis on palaeoenvironmental research, has been responsible for directing the focus of archaeological research from the explicit study of the human past. Archaeology is often singled out as the one discipline which can offer long-term perspectives on change (Deacon, J. 1982:3). We thus have a situation where the past of the South African hunter-gatherers has not been regarded as important in its own right. Some of the Euroamerican negative perceptions of the Native Americans and their past which have given rise to these research approaches, have already been discussed in this chapter and need not be repeated. These issues deserve careful consideration by South African LSA archaeologists, who arguably have a very acute responsibility when dealing with the South African hunter-gatherer past. Among other things, the descendants of the population who produced the archaeological record that we study, were mostly killed or absorbed into the cultures of the dominant European colonisers. They are either not around today or not in a position to study it themselves.

DISCUSSION AND CONCLUSION

This chapter has been wide ranging, but has the unifying theme of the critical assessment of South African LSA research since the early 1960s. In conclusion, I want to focus on the

need for South African archaeologists to develop a contemporary critical awareness of their discipline and briefly locate the critique I have presented and the theoretical framework I am advocating in a broader perspective.

It was suggested above that without a critical awareness archaeologists may often be unaware of the ways in which their work may reflect certain social attitudes with which they consciously disagree. In addition, the results of research can be used in ways unintended by them. I feel sure that this situation characterises South African LSA studies of the last two decades. This highlights the need for self-reflection as an essential part of the ongoing archaeological debate.

Archaeologists must continually be aware of the influence of contemporary society on their work, just as the historian's use of written records must be accompanied by an understanding of the values and concerns of the people and societies that produced them.

Reaching an awareness of how archaeological research is influenced by contemporary society, and highlighting the biases and pitfalls that characterise this research, does not automatically create a new archaeology. But it is partly from this knowledge that we must develop new directions for archaeology.

I propose that the orientation of archaeological research assume an explicitly socially orientated historical approach. Research must also shift from being conducted within a framework of people-to-nature (i.e. ecological terms) to a people-to-people perspective (i.e. social terms). LSA archaeologists must start

giving greater consideration to social theoretical frameworks to document and explain the human past. Significant advances in this direction have been made by Lewis-Williams (1982, 1983, 1984) in the study of hunter-gatherer rock paintings.

Adopting a socially orientated approach does not necessarily argue for the invalidation of palaeoenvironmental research, nor that environments were not a factor in peoples lives. What it does mean however, is that the role of the environment in terms of the human past must be viewed from a new perspective. Essentially, the environment is only one of a number of variables influencing the course of the past. It is also probable that once socially orientated LSA research becomes more established in South Africa, different types of questions may be asked of palaeoenvironmental research.

In the chapters that follow, I will employ a social theoretical framework, using historical materialism in particular, to document and explain the Holocene history of the Thukela Basin hunter-gatherer society.

Intentionally, this chapter has been of a 'parochial' nature with the central theme to trace and understand the development of South African LSA studies since the early 1960s. However, in the same way that it is not possible to understand this development without reference to overseas influences, which I've argued have been substantial, it is equally necessary to view my critique and the approach I advocate (developed in following chapters) in a broader perspective.

Disenchantment with the new archaeology of the 1960s onwards, although always present as an undercurrent from its

inception began to gain ground in the mid- and late 1970s. This development can be traced back to: firstly, the increased influence in archaeology of the French marxist anthropologists such as Godelier, Meillasoux and Terray as well as Friedman (Kohl 1981); and, secondly, according to Patterson (1986), the deepening global crisis of the 1970s, which influenced the rejection by some archaeologists of the reductionist-determinist explanations of new archaeology and stimulated the desire to reunite the study of past societies with the study of history (see also Hodder 1986 pp 77-102). Another contributory factor may have been the increasing exposure of western archaeologists to Soviet archaeology, where archaeology is considered an historical discipline and where an historical materialist epistemology is firmly in place. This has occurred through, for example, Klejn's (1977) major theoretical article in Current Anthropology, Bulkin et al's (1982) review of Soviet archaeology in World Archaeology and Gellner's (ed. 1980) book on Soviet and Western anthropology which was the product of a pathbreaking conference of Soviet and Western anthropologists. These phenomena have made a substantial impact on western archaeology, and Patterson has even gone so far as to say that a community of archaeologists grounded in historical materialism 'has emerged and established a beachhead' (Patterson 1986:21).

In hunter-gatherer archaeological studies in particular, the adoption of an historical materialist approach, or elements thereof by an increasing number of researchers, has resulted in entrenched notions and interpretations of the hunter-gatherer past being questioned, and new understandings based on an

historical materialist framework, or inspired by it, emerging. As mentioned at the beginning of the chapter, these studies are still largely at an embryonic stage, but they are developing rapidly. Most notable among them is the work of Bender (1985a, b) on the American midcontinent and Brittain, Gilman (1984) on the European Palaeolithic and Lourandos (1983, 1984, 1985a, b), Yoffee (1985) and Williams (1986) in Australia. The recent volume 'Prehistoric hunter-gatherers: the emerging of cultural complexity' edited by Price & Brown (1985), although variable in the types of interpretations proposed by the different contributors, can also be seen as part of the trend. The papers in this volume include, for example, Bender's (1985a) and Lourandos's (1985a) interpretation of their discerned social and economic patterns as having been precipitated by changing social relations, Marquadt advocating 'an approach to the analysis of human societies of evolutionary-ecological rationalism synthesized with those of historical materialism' (Marquadt 1985:68), and, finally, Mellars's (1985) investigation of the ecological basis of social complexity in the upper Palaeolithic of southwestern France.

Looking closely at the work of Bender, Gilman and Lourandos, who clearly have been inspired by the French marxist anthropology of the 1960s and 1970s and, in turn, whose work has inspired many archaeologists, differences emerge between Bender and Lourandos on the one hand and Gilman on the other. Bender and Lourandos both deal with Holocene social and economic intensification in their respective areas and locate the primary catalyst for social and economic change among the social

relations of production. Lourandos, for example, argues that

"Through time the development of increasing alliance systems between local groups transformed the hunter-gatherer society to the level where kinship networks evolved beyond the band, incorporating people of other dialects and even of other languages. Simultaneously, the broad egalitarian structure of the society began to give way to gerontocracy where clan elders gained power, status and prestige through polygyny, complex ceremonial institutions, shamanism, exchange systems and the like" (Lourandos 1985a:406).

Gilman (1984), in contrast, aims to explain the "upper Palaeolithic revolution" and although, like Bender and Lourandos, focuses on alliance networks, he views change as being precipitated by the development of the forces of production. As he himself remarks,, "The Upper Palaeolithic Revolution involves, then, a balance in social security brought about by the development of the forces of production" (Gilman 1984:122):

Trigger (1985) has also drawn attention to Gilman's proposition that changes in subsistence strategies and technology in the upper Palaeolithic do not require any explanation since they are "straightforward adaptive improvements". This type of adaptationist approach can be faulted on numerous grounds as been argued earlier in this chapter. Moreover, as Trigger has noted, while the views of Gilman "might be superficially claimed to accord with a Marxist emphasis on change, it can be faulted more specifically in Marxist terms for ignoring the social context of technological development" (Trigger 1985:121).

The type of theoretical approach I adopt in this study is closely akin to that of Bender (1985a, b) and Lourandos (1983, 1985a, b). It is one which places the driving force of history in the social relations of production. In the following chapter, I develop, in detail, the aims and theoretical and methodological

framework of this study.

CHAPTER 3

AIMS, THEORETICAL FRAMEWORK AND METHODOLOGICAL CONSIDERATIONS

In the previous chapter a critique of South African LSA research since the early 1960s was presented. It was argued that numerous deficiencies characterise the research of this period. These deficiencies do not reflect the professional standards of the discipline which have reached increasing heights during this period. Rather they exist in the research orientation and interpretation. It was further argued that much of South African LSA archaeology since the late 1960s and early 1970s was characterised by an ahistorical flavour, and in addition, that changes in the archaeological record (i.e. the human past) were not attributable to the internal workings of society or human creativity. Instead, these changes were viewed as peoples responses to external stimuli, and thus beyond their control.

Chapter 2 concluded with the suggestion that South African LSA archaeology should assume an explicitly socially orientated historical approach. Moreover, it was submitted that because we are dealing with people in the past, we should seek inspiration from social theory in documenting and understanding this past. These two features are the guiding premises of this study. Consequently, the aim of this chapter is twofold; firstly, to define what is meant by an historical approach and justify its adoption; and secondly, to present a social theoretical framework through which to document and understand the history of the Thukela Basin Holocene hunter-gatherer

society. I do not intend to assess the vast quantity of frameworks that abound in the social theoretical literature, but rather to concentrate on the theoretical propositions germane to the aims of this study.

AN HISTORICAL APPROACH: WHAT AND WHY ?

History is the study of past human societies - how people organised their lives and their work, and the changes and developments these societies experienced. In short, an historical approach then is one which seeks to document and understand the development of individual and particular social and economic situations and processes in all their complexity and their causal determination (Trigger 1970; Petrova-Averkieva 1980). Morais, Bingen & Sinclair commented further that

"History is a dynamic process of contradictions formed by the interrelationship between man, labour and environments. Changes continuously occur within any social structure, whether or not these ultimately result in the transformation of society" (Morais, Bingen & Sinclair 1980:715).

This approach can be clearly distinguished from the South African LSA research of the last two decades which has tended to disregard the social sphere as an essential area of study in its own right, and also in terms of its impact on economic and technological development.

Acceptance of these definitions has clear implications for South African LSA archaeology. Firstly, in adopting an historical approach, as presented above, our central aim becomes

the documentation and understanding of the past. Secondly, our research must focus on the complex interactions between people, and between people and nature. An historical approach to the LSA must, therefore, not merely be regarded as doing diachronically-orientated archaeology, where it is sufficient to document and interpret temporal changes in the economic and technological spheres and try and establish rules and regularities in them.

I am not unsympathetic to the view that to consider archaeology simply as a 'kind of history leads not only to the notion that there is no need for specifically archaeological theory, but also the neglect for proper archaeological methods' (Bulkin, Klejn & Lebedev 1981:280). Moreover, I do not wish to imply that historians deny the existence of rules or that the refinement of rules and regularities is an unnecessary or invalid object of research. However, it should continually be borne in mind that these tasks are a means to an end and should not be allowed to become ends in themselves. The rules and regularities must be employed to help explain individual (i.e. unique and non-recurrent) situations and processes (Trigger 1970). In sum then, the end must be historical and all else used as a means to this end.

Adoption of an historical approach does not mean that LSA archaeology is being led into a cul de sac, where research is terminated once a historical sequence has been documented and 'understood'. Any knowledge of historical, and indeed archaeological, research will show that no explanation is fixed. As Carr commented; 'My first answer therefore to the question

'What is History ?' is that it is a continuous process of interaction between the historian and his facts, an unending dialogue between the present and the past" (Carr 1962:30).

McLennan (1981) goes one step further. He remarks that, unlike natural science, historical knowledge must be incomplete because the relations it aims to analyse are between people who are themselves causal actors who alter history materially. With regard to LSA archaeology specifically, a further consideration is that each new excavation or survey influences researchers to reconsider previously held interpretations. By adopting an historical approach LSA archaeologists could be entering an exciting and more meaningful new phase of research.

How then do we view the relationship between the archaeologist and the historian ? An apt answer to this question was provided by Wainwright:

"that an archaeologist cannot be an historian and that an historian cannot be an archaeologist ... only in the sense that they deal with different types of evidence. The same man can be both, ... and it is highly desirable that this should be so" (quoted in Inskeep 1970:302).

There are broadly speaking two sets of reasons for advocating an historical orientation for archaeology. One set could be regarded as moral, and concerns the social responsibility of scientists and ultimately the social relevance of archaeology. The other has to do with academic pursuit, and achieving the best possible insights into our subject matter. I discuss these separately.

In Chapter 2, the influence of social factors on the Euroamerican negative perspectives of the Native American past was illustrated. It was also discussed how the uncritical

adoption of many of the Euroamerican approaches and interpretations by South African LSA archaeologists has led to equally negative perceptions of aspects of the South African hunter-gatherer past. It was submitted that since the early 1970s LSA archaeologists have tended not to view the study of the indigenous peoples' past as being important in its own right. Instead, the generation and application of general theories of behavioural and cultural processes, and palaeoenvironmental research appears in some respects to have been of greater concern. This research essentially serves the interests of a small group of people within society. In the North American context Trigger (1980:671) has argued that if archaeology is to become socially more significant it must learn to regard the past of the Native American people as a subject worthy of study in its own right. There is no doubt that the same applies to South Africa. By adopting this approach together with ensuring the past is portrayed in a sensitive and critical way, knowledge generated by archaeologists will potentially become more accessible, and of greater interest, to a broader spectrum of society. This is because people, and society in general, will be able to identify with this knowledge in a positive and concrete manner. Ultimately, however, the achievement of social relevance will depend on the way in which archaeologists and educationalists make the past available to people. I appreciate that the mere adoption of the above approach will not automatically ensure the portrayal of past peoples in a positive light. This issue is discussed next.

Another negative aspect of South African LSA research is

the view that changes in the human past were stimulated by external forces, in particular environmental and demographic forces. In other words, changes in the past reflect people responding to situations and parameters beyond their control. This advocates that people during the LSA period were docile and content to continue as before unless acted upon by outside forces. In essence, they are perceived as being unable to initiate and effect changes in their social contexts.

Some of the negative perspectives mentioned above and discussed in Chapter 2 have found their way into children's books. The passage I have chosen to illustrate this point was highlighted in a volume dealing specifically with racism in children's books (Preiswerk 1980). Kuya (1980) focused on a quotation on the 'Bushmen' from a comparatively recent (1976) publication dealing with race in South Africa. The quotation read:

'If we study the way of life of the Bushmen - which has remained almost unchanged for many centuries - we shall see that the Bushman were primitive, and lived a nomadic life, they were nevertheless quite intelligent because they had learnt how to adapt themselves to their environment (Auerbach quoted in Kuya 1980:40 my emphasis).

We can grant that the 'Bushmen' have been referred to as being intelligent, but it is of interest that this is only in as much as they learnt how to adapt themselves to their environment. In the previous chapter, I argued that the concept of adaptation should be rejected. The Thukela Basin hunter-gatherer study presented here will further demonstrate this point. The 'unchanging' nature of 'Bushman' society also emerges strongly in this quotation. The contention that 'Bushman' life remained

almost unchanged for centuries is equally fallacious and should be rejected. Careful study of the recent, and more distant, hunter-gatherer past reveals its dynamic qualities. This is not to imply that all aspects of the society were everchanging. The general character of hunter-gatherer society was rather one of dynamic adjustment and change (Leacock & Lee eds 1982a; Price & Brown eds 1985).

Two points emerge from the above examples of the negative perceptions of the hunter-gatherer past; firstly, that there is an urgent need for archaeologists to strive towards presenting a more sensitive and critical view of the past; and secondly, and related to the first point, that archaeologists have a responsibility to correct misconceptions about people in the past at all times. In working towards rectifying shortcomings in South African LSA research, as highlighted in Chapter 2, archaeologists must recognize the dynamic nature of hunter-gatherer society and the central role played by humans in the making of history. Not because it represents an idealised, imposed state of being, but because careful study of past and contemporary societies shows it to be so.

Archaeologists, like other social scientists, will not be able to work towards presenting a new perspective on the past by merely having this good intention alone. As argued in the previous chapter, researchers must become more reflective and develop a contemporary and ongoing critical awareness of their research aims and interpretations, and must be continually conscious of society's influence on their work. Armed with these tools they will then be able to start moving closer to these

goals. Finally, guidance can be taken from Miller & Tilley's instructive comment that, "It seems preferable to grant to all Homo sapiens sapiens, the abilities and characteristics we wish to grant to ourselves" (Miller & Tilley 1984a:2)

An additional reason for approaching archaeology in an historical framework, and embracing the sentiments already expressed in this chapter, can be found in what is felt by some to be the reasons for studying history. According to Garlake & Proctor (1985) one of the reasons for studying history is to improve the way we live and build a better future. As they see it, this can be achieved by understanding how our lives came to be as they are. We, therefore, require a base against which to view the present, and it is in this respect that the nature and character of the hunter-gatherer past we present is so critical. These sentiments are echoed in the introductory booklet of the Turret Correspondence College, Senior History Course,

"All of us have questions about the future. We wonder what will happen to us and our children. It is also important to ask questions about how the world's problems came about. We will plan for a better future if we try to understand the past" (Turret Correspondence College, Senior History Course: Introductory Booklet 1985:2).

Goma (1984) has dispelled the notion that history is a 'useless' discipline which contemporary Africa cannot afford. According to him it meets a real human need, "the need for greater human understanding" (Goma 1984:41). In conclusion then, archaeologists have an important and meaningful contribution to make, in that by providing a critical and sensitive picture of the hunter-gatherer past and dispelling existing misconceptions they can assist in laying the foundation

for a better future.

We now turn to the academic reasons for adopting an historical approach. The standpoint taken here, is that in order to achieve the best possible insights into our subject matter we need to study it in a socially-orientated historical perspective. As Bender commented:

"Given the complexity and particularity of economic, social and ideological interaction, any analysis must be historically contextualized. Tensions and the resolution of tensions within a given society, cannot be understood except in terms of its specific historical trajectory" (Bender 1985b:53).

I doubt whether this position would be contradicted by students of history and archaeology. Anthropologists and other social scientists have also increasingly begun to perceive the need for working within an historical framework and establishing historical context (Sharp, J. 1985; Spriggs 1984). This also applies to ethnoarchaeology; for example, Wiessner (1985) partly attributes her inability to provide a conclusive interpretation on the stylistic and social meaning of the modern Kalahari hunter-gatherer projectile points to her incomplete understanding of their historical development.

Having said all this, however, it is equally true that there are still archaeologists who until recently were working in a primarily spatial framework, and others doing diachronic research who viewed among their primary objectives the establishment of rules and regularities about change. Archaeology is often singled out for the latter type of research because it is unique in offering long term perspectives on change (Deacon, J. 1982:3).

In view of the Chapter 2 discussions and those of this chapter, it is clear that LSA archaeologists need to urgently reconsider many well-entrenched notions. Among others, these include, firstly, the aims of their research, secondly, its broader social context and relevance, and thirdly, their theoretical frameworks and interpretations. Up until now, I have presented my views on the first two in some detail, but only cursorily on the third. The rest of this chapter will be devoted to theoretical frameworks and interpretations, methodological considerations and a review of a recent paper by Lewis-Williams (1984) on LSA society.

LEWIS-WILLIAMS: IDEOLOGICAL CONTINUITIES IN THE LSA ?

A recent departure from the previous interpretations of the LSA is Lewis-Williams's (1984) paper on the ideological continuity of LSA society in southern Africa. Besides Horwitz (1978), Lewis-Williams's paper represents the first real attempt by a southern African researcher to approach the LSA archaeological sequence from a social theoretical perspective. Lewis-Williams's (1984) paper is however, deficient in certain respects. The following criticisms of Lewis-Williams's paper do not in any way detract from his very significant contribution to the understanding of hunter-gatherer paintings. Of chief concern to this study is that, although he states that he does not "wish to imply that hunter-gatherer society is timeless and necessarily frozen" (1984:23), his interpretations of the last

26 000 years of hunter-gatherer society do create that impression.

Lewis-Williams (1984:230) has drawn theoretical inspiration from the structural-marxist approaches of Godelier (1975, 1977, 1978) and Friedman (1974). These approaches have been criticised for their inability to recognize and handle historical process. Of Godelier, Gledhill commented that, 'Despite his programmatic emphasis on historical process and the explanation of structural transformation, Godelier himself has seemed capable of producing only static 'characterisations' of social formations in practise' (Gledhill 1981:5). Kahn & Llobera (1981:298) have further remarked that structural-marxists have tended to regard the society under study as though they had no history. This type of approach generally leads to the periodisation of history, whereby specific historical entities are studied without consideration of how they came into existence, and the changes they underwent without experiencing a complete transformation. By focusing on this paper of Lewis-Williams I will deal with two things; firstly, I will show that Lewis-Williams's interpretation of the southern African LSA hunter-gatherer society is both ahistorical and deficient; and secondly, illustrate partly why I do not follow the structural-marxist approaches of Godelier and Friedman.

Lewis-Williams's basic argument is that the southern African hunter-gatherer society of the last 26 000 years is characterised by ideological continuity. Lewis-Williams defined ideology, "as the set of ideas that legitimizes the form and functioning of any society" (Lewis-Williams 1984:230). The

manner in which Lewis-Williams goes about proving this contention is briefly as follows. He first argues that kinship informs social relations of production among modern Kalahari hunter-gatherers, and that because he does not perceive any changes in the social relations of production during the LSA it must have done so throughout the LSA. Furthermore, because 'no changes in the relations of production can be demonstrated, we have no reason to suppose changes in ideology' (Lewis-Williams 1984:234). Following this, he argues the ideological link between two groups of art mobilier (one group dating mostly within the last 4000 years and the other from Apollo XI Cave and dating to either 19 000 or 26 000 BP) on the basis of one painting, a questionable 'lion therianthrope' from Apollo XI Cave (Lewis-Williams 1984:246 Fig. 9.11). This identification can be further called into question when considering that the Apollo XI Cave paintings must be amongst the earliest attempts at painting by the southern African hunter-gatherers, and thus could be exploratory from a purely technical perspective. In addition, it requires a great deal of faith simply to accept this connection when possibly over 20 000 years (and thus about 80% of the time we are dealing with) separates the two groups of art mobilier.

Lewis-Williams's argument is characterised by theoretical, factual and interpretive errors. However, I limit my comments to two spheres; firstly, his portrayal and interpretation of the archaeological record; and secondly, the merging of kinship and social relations of production in his analysis.

After a short discussion of the archaeological evidence, in fact only four paragraphs long, Lewis-Williams concludes that 'there is no evidence to suggest that [the terminal Pleistocene/Holocene environmental change] was accompanied by any major shifts in hunter-gatherer relations of production other than a possible increased emphasis on snaring (Klein 1972:139)' (Lewis-Williams 1984:234). How did Lewis-Williams arrive at this conclusion? First, he uncritically cites southwestern Cape researchers' arguments that changes that they have identified in the archaeological record as for example, greater dependence upon plant foods and shellfish and major redistributions of people, were caused by climatic fluctuations. This is followed by the proposition that the Kalahari hunter-gatherers and southern San have similar ideologies even though they lived in different environments, and only the Kalahari hunter-gatherers came into contact with 'Iron Age' pastoralists. After further brief discussion, mainly on the question of whether environment affects ideology, Lewis-Williams concluded that 'arguments that ecological changes through time must necessarily have changed ideology are therefore groundless; San ideology is compatible with diverse environments' (Lewis-Williams 1984:233).

Several shortcomings are identifiable in Lewis-Williams's argument. To begin with, he fails to acknowledge that the southern San hunter-gatherers probably came into contact with Stone Age pastoralists, and that this contact might have had a similar impact on them as the 'Iron Age' pastoralists had on the Kalahari hunter-gatherers. Of more importance, however, is that

in order to reach his conclusions, Lewis-Williams accepts the contention of the southwestern Cape researchers that changes they have identified in the archaeological record have been caused by fluctuating environmental conditions. By doing this, Lewis-Williams gives tacit support to these types of explanation. A contradiction thus emerges in Lewis-Williams's approach; while advocating an historical materialistic approach which accords people and their inter-relationships the central role in the making of history, his argument that hunter-gatherer ideology remained fixed in time is based on the premise that changes in the archaeological record are caused by environmental change. For, essentially what he has argued, is that because changes in the archaeological records are caused by environmental changes and ideology is compatible with different environments, hunter-gatherer ideology must have remained fixed. This, he supports with his inability to uncover other archaeological indications of social relations of production/ideological change. However, his inability to identify changes of this nature is a direct result of his uncritical acceptance of the environmental causality argument.

In his portrayal of the archaeological record, Lewis-Williams strangely refers only to the increased emphasis on snaring during the early Holocene as possibly indicating a change in relations of production. Had he scratched the surface a little further, he might, for instance, have found that H.J. Deacon (1972, 1976) had postulated different forms of social organization for the Albany and Wilton hunter-gatherers. Surely, it is this type of phenomenon, which has potentially interesting

implications for documenting changing social relations of production, that he should have focused on. But perhaps Lewis-Williams's gravest mistake is that after committing himself to an historical materialist approach he fails to apply it. If he had, he would have sought in a more rigorous fashion, the basic movement of history in the dialectical development of the forces and social relations of production. (This will be elucidated in more detail in the following section of this chapter). Consequently, he would have viewed the changes in the archaeological record not merely as peoples' responses to changing environments, and may have investigated in a more rigorous way the inter-relationship between people and between them and nature. For example, the mid and late Holocene increased emphasis on underground plant foods, which were probably collected primarily by women, and population redistributions may have acquired a new meaning and not been relegated merely to peoples' responses to external forces. By approaching his analysis in this manner his understanding of hunter-gatherer LSA history would probably have been quite different, and we would not have been left with the impression of a static hunter-gatherer past.

A cornerstone of Lewis-Williams's understanding of the LSA hunter-gatherer past, is his merging of kinship and social relations of production when drawing his conclusions. Essentially, what Lewis-Williams has argued is that because kinship 'informed' hunter-gatherer social relations of production in the early LSA and continues to do so today, ideology must have remained fixed. No doubt, in postulating this relationship he

was influenced by Godelier, who, in his analysis of hunter-gatherer societies has tended to conflate kinship and social relations of production. However, Godelier's argument is methodologically unsound and he is incorrect 'in deducing that such societies have no relations of productions analyzable apart from kinship structure' (O'Laughlin 1975:364).

Leacock & Lee (1982b:8 & 9) have produced a list of core features that typify social relations of production among hunter-gatherers universally. These include: the right of reciprocal access to resources of others through co-production, marriage ties and visiting; little emphasis on accumulation; balanced reciprocity or 'total sharing' within the band and with visitors; access of all to the 'forces of production'; and individual ownership of tools. Clearly, not all of these are related to kinship. Even one of Lewis-Williams's (1984:232) listed functions of social relations of production, the regulation and allocation of the labour force, which, among other things, concerns male/female relations, is not strictly informed by kinship. Suskind's (1978) comment that a particularly glaring omission in Godelier's work, is that he takes for granted, and thereby analytically ignores gender division, is of interest in this context. Thus, we must conclude that hunter-gatherer social relations of production are not merely reducible to kinship.

This understanding has important implications for Lewis-Williams's overall argument. It can be argued that, even though kinship ties might have remained unchanged during the LSA hunter-gatherer past (though I do not necessarily believe this was the case), other features of the social relations of

production might have altered, causing ideological shifts. This is working from the premise that the superstructure (which includes ideology) is ultimately determined by the forces and social relations of production. This will be discussed in the following section.

One further point with regard to the above discussion; it is possible that shifts in the social relations of production influenced changes in aspects of the kinship structure and, in turn, in ideology. This might, for example, characterise a hunter-gatherer society experiencing a process of intensification, where a set of kinship relations might have to be re-rationalised to accomodate a new set of social and economic circumstances. The potential dynamic nature of kinship structures needs to be acknowledged. Thus, although there might have been continuity in the manner in which kinship informed social relations of production in LSA hunter-gatherer society, it does not automatically follow that the social relations of production, kinship or ideology remained fixed, unchanging entities. This whole issue obviously requires considerably more thought and debate. However, it is clear at this stage that Lewis-Williams's merging of kinship and social relations of production, followed by his use of this framework to argue for ideological continuity among southern African hunter-gatherer society of the last 26 000 years, is deficient and should be rejected.

In conclusion, while not wanting to create the impression of a static hunter-gatherer past, Lewis-Williams has done just that. This is partly because of the social theoretical framework

he has used. In reaching these conclusions about Lewis-Williams's interpretations I have identified certain problems. Understanding where he has faulted is important to this study, and more generally to South African LSA research. Because; firstly, like Lewis-Williams, I am convinced of the need for South African LSA research to be informed by social theory; and secondly, it will help prevent the same errors in the future.

THEORETICAL FRAMEWORK

In the first section I briefly defined what I mean by an historical approach. Thereafter the adoption of such an approach by South African LSA archaeologists was justified. Lewis-Williams's application of the ahistorical structural-marxist approach to the South African LSA was also criticized. The next task is to begin developing a theoretical framework within which to document and understand best the Holocene history of the Thukela Basin hunter-gatherers. I consider the historical materialist approach, despite its flaws, to be the most appropriate and potentially profitable theoretical approach available. As Hall remarked,

"Emphasis on the role of the relations of production redirects attention to the totality of human behaviour and avoids the reductionism inherent in both approaches, which has seen a determinate role in the environment and those which have given primacy to the "cognitive system" (Hall 1985:2).

Marx, in his research, was primarily concerned with

explaining the rise of capitalism, and the workings of capitalism itself. He therefore paid scant attention to non-capitalist societies. This is also partly due to the fact that during his lifetime (1818-1883) little was known about these societies. However, in his historical research Marx developed a sophisticated framework for social analysis. Numerous aspects of this framework are germane to the study of hunter-gatherer society, past and present (e.g. Lee 1979). However, it is not a matter of simply imposing, verbatim and uncritically, the analysis of capitalist society onto hunter-gatherer society. The relevant concepts and analytical tools have to be carefully chosen, and then adopted to meet the requirements of a considerably different society and, in the case of archaeology, a considerably different set of research circumstances. Nevertheless, the analytical tools developed by Marx for studying society and social change offer a very valuable departure point for the study of Holocene Thukela Basin hunter-gatherer history.

Contrary to certain academic preconceptions and social prejudices, historical materialism is not a dogmatic grid to be imposed uncritically on any problem. Rather, it provides a basic set of principles by means of which people are trying to comprehend the past and present. A study of modern debates within historical materialism show clearly that differences in interpretations abound within the tradition (e.g. Kahn & Llobera 1981; Llobera 1979; Spriggs 1984; Trigger 1985). Although there are differences, the tradition is not in disarray. On the contrary, there are certain basic principles shared by all historical materialists (Spriggs 1984; Trigger 1985). This

debate is viewed by historical materialists as positive and creative. Thus the view of historical materialism as a monolithic dogma is unfounded and unacceptable. In addition, it is recognized that this view is often propounded by scholars and people who either have an incomplete and biased academic understanding of it, and/or those who are antagonistic towards it for reasons other than academic.

In constructing my historical materialist model I have drawn heavily on the work of O'Laughlin (1975). I intend focusing specifically on the concepts and approaches most germane to the aim of this study; the documenting and explaining of the Holocene history of the Thukela Basin hunter-gatherers.

The central proposition of historical materialism is that social production and reproduction are the basis of human society. As Engels stated,

"According to a materialistic understanding of history, the decisive moment in the historical process as a definite phenomenon is in the end production and reproduction of real life. Neither Marx, nor myself even maintained anything beyond that. If some should distort this opinion by maintaining that the economic factor is allegedly the single determining factor, he would turn this opinion into an abstract meaningless phrase" (quoted in Klejn 1970:302).

A similar position has been adopted by Wiener (1978, 1979, 1982) who has formulated, what she calls a 'model of reproduction.' To her, reproduction relates to the particular manner in which individuals are linked, and the way these ties are expressed through the exchange of substances, materials, and knowledge. Weiner maintains that her model is not merely the equivalent of Marx's social relations of production, but more encompassing. This may be so, but it does not mean that these

aspects were omitted from Marx's analytical framework. As understood in this study, the exchange of substances, materials and knowledge would be considered an integral part of social production and reproduction.

Another central tenet of historical materialism concerns the dynamic nature of society. This results from the historical materialists' subscription to the conflictive as opposed to consensual view of society. Society is believed to be in a continuous process of change. Such change is rooted in the notion of the dialect - a unity and conflict of opposites within each phenomenon or process (Slaughter 1985:17). The absence, for example, of surplus production (which is considered a key cause of contradictions and tensions between people in non-egalitarian societies) in hunter-gatherer society does not mean that contradictions and tensions do not exist within this society. It is likely that they will be inherent in other relations, for example, between the sexes. In this dialectical scheme the conscious actions of classes and/or social groups are viewed as pivotal and paramount no matter how they are fixed in their 'economic' base (Kohl 1981). It is for this reason that our research should focus on activity. However, it is also recognised that social actions may result in unintended consequences. This could give rise to material effects not anticipated by the social group or class instrumental in influencing the changes.

To give meaning to the proposition that social production and reproduction are the bases of human society, two concepts are isolated and focused on. Firstly, that production is a social

process; and, secondly, that the dynamic character of human society is determined by production and reproduction. These are discussed separately below.

To begin with, humans can only reproduce themselves socially and biologically through co-operation with others. Thus, even though people are individuals, they are still part of a set of social relations. As a result, no natural opposition exists between individuals and society. Unlike the structural-functionalist model of society which assumes that equilibrium is a prerequisite for the reproduction of society, Marx argued that societies need not be in harmonious equilibrium in order to reproduce. The mechanics of this process are discussed below.

According to Marx, the social system is a dynamic totality composed of inter-relations between people and between people and nature. This social totality comprises relations containing different qualities. As social production and reproduction and human subsistence constitute the foundation of society, the social relations of production and forces of production (defined below) are recognised as determinant conditions. Consequently, the ideological and jurido-political relations (i.e. the superstructure) are ultimately determined by the productive forces, with accordant types of exchange, distribution and consumption (i.e. the base). According to O'Laughlin (1975) this is not meant to imply that Marx envisaged history as merely expressing productive relations. She argues that this type of economism is, in fact, diametrically opposed to Marx's understanding of the relationship between the base and

superstructure. Marx never aimed to reduce all social relations to relations of production. For example, religion and politics were not viewed as primarily economic institutions. 'Quite the contrary, he wished to show that the relations of the social system were of different qualities, with the base ultimately determining the structure of the whole' (O'Laughlin 1975:349).

Social relations of production can be defined as those relations that people enter into to reproduce society as a social and economic unit. It thus encompasses the need to determine the use to be made of the environment within the limits established by the available technological possibilities; the control of access to resources; the co-ordination of individual activity in the labour process; and the need to determine the use and distribution of the products of the environment. These relations are intangible and have to be drawn out. Forces of production, on the other hand, comprise; firstly, society's technological and environmental conditions, including a working knowledge of these elements (means of production); and, secondly, the organisation of production, that is the way in which labour is concretely organised on a daily basis. Unlike the social relations of production, these elements are tangible. The mode of production is defined as the articulation of the social relations and forces of production.

To fully comprehend that the base is the determinant condition, it is essential to understand the significance Marx assigned to the concept of reproduction. Social production was not simply seen as people producing, but also as people

reproducing the conditions of their own existence. Production must, therefore, be seen to include the reproduction of the means of production, reproduction of labour and reproduction of the social relations of production. It is for these reasons that Weiner's criticism of historical materialism for not taking cognisance of human reproduction in the widest possible sense, can be rejected.

As already mentioned, contradictions and tensions are an intrinsic feature of human society. These contradictions and tensions often emerge in the dialectical working of the relationship between the social relations and forces of production. The mediation of the superstructure, however, allows the process of society's reproduction to continue despite these contradictions. It is possible that these relations themselves are contradictory and do not bring about functional unity or consistency. Neither are the contradictions cancelled by the mediating structures. They merely allow their reproduction, frequently in a more antagonistic manner. The links between the superstructure and base within the social system are therefore established through the concept of reproduction (O'Laughlin 1975:350).

The concept expressed earlier in this chapter that the basic movement of history is the dialectical development of the forces and social relations of production can now be properly understood. Furthermore, it is thus logically correct to assert that people make their own history. This movement of history can take many forms. Each situation is regarded as being unique in time and space. It is acknowledged, however, that there are

levels at which historical situations can be generalised. Though, no doubt, similarities of varying degrees will exist between different situations, none will be exactly the same. Thus, while our knowledge of the past can benefit from being informed by generalisations, it must ultimately be generated by an analysis of individual and particular situations and processes in all their complexity.

Another important factor which Marx drew attention to, was that people do not live under conditions of their own choosing, but under those transmitted from the past. All this returns us to a position advanced at the beginning of this chapter: the need for an historical approach, as defined earlier, in which our research aims to document and understand the past in a regional framework.

Although the differences between the forces and social relations of production can be conceptualised, they cannot be analysed in isolation. There must exist a constant dialectical movement between them. The dialectical relationship between the forces and social relations of production is based on the oneness of people with nature and the opposition of people to nature in production. In order for society to produce and reproduce, nature must be appropriated by human labour.

The relationship between the social relations and forces of production can hypothetically be conceptualised in four main ways. Firstly, to argue for the dialectical unity but difference between the forces and social relations of production; secondly and thirdly, the separation of the forces and social relations of production, which although they are dialectically united, one or

the other is seen to be dominant, and fourthly, the dialectic between the social relations and forces of production is fractured, and they are conceptualised as two separate forces within one functional system. To best understand the Holocene historical development of the Thukela Basin hunter-gatherer society, the relationship between the social relations and forces of production must be viewed in terms of a dialectical unity. The position I am adopting is that within this dialectical relationship the social relations of production are ultimately determinant (Hindness & Hirst 1975; Friedman & Rowlands 1978:203). This does not mean that the social relations of production are autonomous. On the contrary, they exist in relation to other elements in society and nature.

Within the dialectical relationship between the forces and social relations of production, the forces of production and environment act as constraining forces. In other words, they set the outer limits for the possible variation of the social relations of production (Friedman 1974:451). Looking specifically at environment, a change in environment alters the options available to society, but does not provide the society with a ready made answer of which option to chose. The specific course of action will be determined by society. Consequently, knowledge of past environments does not automatically provide us with the key to explaining hunter-gatherer history. This point relates to comments made in the previous chapter on the manner in which LSA archaeologists have tended to employ environment as a deterministic explanatory mechanism. As submitted in Chapter 2 and reiterated above, these types of explanations need to be

questioned and even rejected. Environment will now have to be viewed in a new perspective by South African LSA archaeologists.

The inter-relations between the social relations and forces of production are not straightforward and simple, but are complex. In studying their relationship it is essential that there exists a constant and tight dialectical movement between the two forces. In addition, in moving from one to the other, there must exist internal logic and consistency. By working from this premise I hope to overcome the problem of 'theoretical leap-frogging' of which historical materialists working in archaeology are often guilty. As Trigger (1985) commented, this occurs when not enough attention is paid to economic and ecological variables.

With regard to technology, no understanding of social change can be separated from technological change. Furthermore, technology cannot be regarded as an independent variable unconnected to the internal workings of society. As O'Laughlin remarked, "No understanding of social change can be analytically separated from technological change, for in acting on the external world and changing it, people at the same time change their own nature" (O'Laughlin 1975:35).

Llobera (1979) has drawn an interesting, though perhaps only partial, analogy by means of which to conceptualise the relationship between technology and society. He maintains that technology is to society as a thermometer is to fever - both measure something (the development of society; the fever). With this understanding it would thus be incorrect to argue that they (technology and the thermometer) are the cause of something.

Working from this premise, we can avert two fairly common mistakes; firstly, technological determinism, where it is argued that technology acts as a determining force in social change; and secondly, that technological development is the product of evolutionary momentum unconnected to the internal workings of society.

METHODOLOGICAL CONSIDERATIONS

The previous sections of this chapter presented the aims of this study and the theoretical framework. It is now appropriate to consider some methodological aspects and, in particular, to trace the links between the material record and the conclusions about intensification, social restructuring and gender relations to be presented in Chapters 4-6, which deal with the period up to 2000 BP. I place this discussion here so that in these chapters I can focus exclusively on the study at hand.

The task of moving from the material record to the documentation and understanding of past hunter-gatherer societies, and especially social strategies and social restructuring, is probably the most difficult task facing LSA archaeologists. One methodology which has been proposed to extract information from the archaeological record, and which is enjoying popularity at present, is that of middle-range theory. There is some dispute however as to what middle-range theory is (Bettinger 1987; Thomas 1986) and where it originated in

archaeology (Raab & Goodyear 1984). Binford, perhaps the best known of its adherents, proposes that it is "(a) how we get from contemporary facts to statements about the past, and (b) how we convert the observationally static facts of the archaeological record to statements of dynamics" (Binford 1977:6).

Grayson (1986), Raab & Goodyear (1984) and Thomas (1986) provide somewhat different interpretations of what middle-range theory is, but, according to Bettinger (1987), Binford's one is most commonly applied. Despite these differences, there is general agreement that middle-range research is the study of processes and the results of these processes in extant societies, with the aim of using the findings and conclusions drawn from this research to make inferences about past human societies. Bettinger remarks further that,

"Apparently everyone agrees that the forager-collector continuum is theory and, moreover, that it is middle-range theory in the sense of Merton. It begins with the general assumption that celeris paribus, environment is a - perhaps the - strong force in the shaping of hunter-gatherer adaptation" (Bettinger 1987:127).

There seems to be consensus among the critical commentators of middle-range research and theory that while its aims are laudable and that information generated by middle-range research will provide useful insights into past hunter-gatherer societies, the theoretical framework associated with the research is flawed. This position is held by people holding markedly different theoretical perspectives, as for example, Bettinger (1987) who is a supporter of optimal foraging theory and Hodder (1986) whose contextual archaeology is closely linked to historical materialism (Spriggs 1984), as well as Watson (1986)

and Wylie (cited in Watson 1986). Of concern to them is the assertion by Binford and others that middle-range theory is 'independent' theory, and thus I assume 'objective', and that their research can proceed in the absence of general theory, when clearly it cannot. Wylie (cited by Watson 1986) is of the opinion that middle-range actualistic studies are just as paradigm bound and theory dependent as are any other interpretations of the archaeological record, and Hodder comments that 'the notion that Middle Range Theory is distinctive because it is independent theory, which can be used to test other theories is false' (Hodder 1986:116). Following on from this, it can also be argued that even if we obtained very plausible laws and regularities about a range of phenomena in extant societies, the application of these to past societies requires inferential leaps (Trigger 1984a; Watson 1986), which obviously cannot be theory free. In this respect, Bettinger's (1987) statement on the way in which middle-range theorists view the relationship between people and the environment is of interest. I have presented my views on this relationship in Chapter 2 and earlier in this chapter, and need not repeat them here.

In this study, as described earlier, I have adopted an historical materialist approach, and have argued that the basic movement of history resides in the dialectical development of the forces and social relations of production. Moreover, that although these forces can be conceptually distinguished, they cannot be understood in isolation. In following this through to my analysis of Thukela Basin Holocene hunter-gatherer society, my approach is first to study these different forces individually,

and thereafter consider them as a whole.

While this scheme provides an overall strategy within which to tackle the study of the Thukela Basin hunter-gatherer past, in itself it does not provide a methodology for generating dynamic statements about social history. Archaeological research is weak in this sphere, not only because of the technoenvironmental focus of much of past research, but also because of the difficulties of elucidating past social strategies and structural developments from the material record. However, I believe that we can begin moving towards generating social information on the hunter-gatherer past by simply having that as the primary focus of study, which has not been the case in previous South African LSA research. Following on from this, we need to pay greater attention to our understanding of the way in which social change occurs. This will serve to further sharpen our focus on the types of issues we concentrate on, and the nature of the questions we pose. Furthermore, on the types of questions we pose, this issue has been forcefully raised by Conkey & Spektor (1984) in relation to the study of the role of women in past societies. They note that questions relating to past gender behaviour or organisation are seldom posed, and that this has resulted in the 'invisibility' of women in the archaeological record.

At this point, it is pertinent to emphasize that I subscribe to the conflictive as opposed to the consensus notion of society, which believes that a society is in a continuous process of change. Such change, as mentioned earlier is rooted in the notion of the dialect - a unity and conflict of opposites

within each phenomenon or process (Slaughter 1985:17). This understanding of social processes serves to further focus the nature of research on past societies. However, it is acknowledged that simply asking more pertinent questions on past hunter-gatherer societies will not in itself provide greater information on these societies. This will be achieved through close, critical and imaginative interaction between theory on the one hand and the archaeological data and other relevant information on the other hand.

To generate information on past hunter-gatherer social strategies and structural developments among other things, it will be necessary to draw heavily on information provided by a wide range of disciplines, including those closely aligned to archaeology such as ethnography, ethnoarchaeology and cultural anthropology but also those more distant such as dietetics, ecology and botany. The 'eclecticism' of this approach is necessitated by the fact that we are dealing with humans and their inter-relations as well as their relationship with nature, and, as Wallerstein has argued, 'When one studies a social system the classical lines of division within the social sciences are meaningless' (Wallerstein 1974:11). Wobst (1981) has cautioned against the uncritical use of ethnography and this obviously also applies to the use of information from other disciplines, while Hodder (1986:103-105) and others have drawn attention to problems inherent in ethnoarchaeology and the need for it to be more closely linked to anthropological and history theory and method. To move from the material record to statements about a socially dynamic hunter-gatherer past, requires clear and well reasoned

inferences to be made, by drawing on a range of archaeological and other information and insights and working within a coherent theoretical framework. An important point to bear in mind here, and which will be developed later, is that the notion that when dealing with material culture we can only generate 'cultural' insights and not 'social' insights, is a false one. Indeed, as Thomas remarked, this approach 'neglects the fact that material culture is directly involved in the 'negotiation' of social relations' (Thomas 1987:406).

The above discussion leads into the question of the proof and testability of hypotheses. This is a well worn debate in archaeology, and full exposition of it is beyond the scope of this study. Nevertheless, it must be considered, even if only briefly, because it is central to the question of methodology and the development of our understanding of past societies. On a general level, the archaeological community divides into two on this question (Bender 1985a:49). There are those who subscribe to a logical positivistic notion of science, and who believe that an hypothesis can be objectively tested through empirical means to decide on its utility. Bender (1985a) remarked that the insistence of Binford, one of the strongest spokespersons of this camp, on testability has meant that his research and that of his followers, is geared primarily to natural phenomena, or to cultural phenomena reduced to technoenvironmental strategies. This has tended to create a straightjacket approach where 'Theory becomes tailored to the more obvious classes of evidence and, as a concomitant, has in recent years tended to concentrate on middle range questions concerning formation process' (Bender

1985a:49).

Another position, and one which I subscribe to, rejects the positivistic method of enquiry, and instead emphasizes for the evaluating of hypotheses and interpretations, whether they are plausible, stand up to the critical evaluation of the accuracy of the facts cited (Walker 1978:232), and finally, whether they display internal consistency and there is a logical coherence between the data presented and theorisation (Miller & Tilley 1984b). Walker (1978) has also argued for the validity of intuition in research contexts, but this obviously needs to be treated cautiously. The use of intuition for identification in the archaeological context has been summed up by Thompson as 'the combination of the investigator's anthropological background or training in fact and theory, his archaeological experience which is often called familiarity with the material, and his intellectual capacity' (quoted in Walker 1978:233).

As a final comment on the subject, it is worth considering Pearson's (1984) remark that the majority of social scientists explicitly or implicitly use concepts such as 'human nature', 'rationality' and 'common sense' to influence, interpret and explain the course of events which they observe and take part in. And in this respect, it is likely that there is more common ground between the protagonists of the two positions (mentioned above) on the assessment of hypotheses and interpretations than we are generally led to believe.

When pitting one approach against another, irrespective of which confirmatory principles are used, we must assess which generates greater insights on the society under study (Gregory

1984). And, as Spriggs commented, "It is at this level that the usefulness of Marxist perspectives will ultimately be judged by the uncommitted" (Spriggs 1984:5). This applies to this study - as it will be judged against other South African LSA interpretations in terms of the information gleaned on Holocene hunter-gatherer societies.

Next, I want to consider some of the more important conclusions to be presented in Chapters 4-6, and also look at possible alternatives which have not been considered appropriate.

Considering first the forces of production, and here I focus on society's technological and environmental conditions, I conceptualise the changing human/environment relationship in terms of intensification. In particular, I will concentrate on production, and submit that the Thukela Basin 7000-2000 BP hunter-gatherers extracted increasing amounts from nature. Increasing production in hunter-gatherer societies is likely to be associated with two variables, namely an increasing population and/or people occupying an area for longer periods. I propose that both these phenomena typified the hunter-gatherer society under study. In Chapter 4, I detail the information which supports this proposition. This involves a close focus on the animal, plant, stone artefact and pottery remains as well as the number of sites known to have been occupied and the distribution of these sites.

Before continuing, it needs to be emphasized that many of the phenomena I interpret within the framework of intensification have been previously recognized by researchers, but considered simply as adjustments in subsistence strategies. A good example

of this in the South African context is Parkington's (1980) observations on the increased interest on shellfish, plant foods, tortoises, dassies, browsing antelope and freshwater mussels by the southern and eastern Cape Holocene hunter-gatherers.

Recent interest in the concept of intensification in hunter-gatherer studies was first stimulated by Bender's (1978) focus in the late 1970s on the hunter-gatherer to farmer transition. The Price & Brown (eds 1985) volume which focuses on the emergence of cultural complexity among hunter-gatherers, is a good indication of this interest, as it includes papers which discuss hunter-gatherer intensification in such diverse areas as Europe (Bender 1985a; Price 1985; Woodman 1985), the Middle East (Henry 1985), North America (Bender 1985a; Brown 1985; Marquadt 1985) and Australia (Lourandos 1985a).

As the use of the concept of intensification in hunter-gatherer archaeological studies is relatively young, not much critical debate of it has emerged. One notable exception, however, is in the Australian context, where Lourandos has been challenged by Beaton (1983, 1985) on his interpretation of the recent Aboriginal past. However, a close study of Beaton's papers (1983, 1985) reveals remarkable agreement with Lourandos that significant changes, such as the increased use of sites and an increase in the number of sites used and the colonisation of marginal areas, typify the mid- and late Holocene archaeological record. Indeed, it would seem that although Beaton says that he opposes the use of the term intensification, his real objections concern Lourandos's social interpretations of the reasons for these changes. For, as Beaton remarked, 'a simple population

increase model would adequately account for all these changes without reference to social transformations or restructured economies' (Beaton 1983:96). I have already stated my objections to the type of model proposed by Beaton, and they will also form part of later discussions.

In Chapter 5, I focus on the social restructuring of Thukela Basin 7000-2000 BP hunter-gatherer society. The main treatment of this subject will be left to Chapter 5 where the discussion of the theoretical framework, presentation of the material information and the conclusions drawn from these, form a coherent chapter. Here, I would like to briefly review the nature of the analysis I use, because as Gamble comments

'We cannot dig up an alliance network, a regional adaptation, or a marriage universe any more than we can dig up a chiefdom or a predefined type of settlement. What we usually do is hang these labels around the necks of the patterns we have discovered, thus showing, in an after-the-event manner that our conceptual units have empirical reality' (Gamble 1986:62).

My first, and perhaps major, concern in the study of the structural development of Thukela Basin hunter-gatherer society is to isolate an appropriate unit of study. Following the lead of Bender (1981, 1985a, 1985b), Gamble (1982a, b, 1986), Lourandos (1983, 1985a, b), Wobst (1974, 1976) and others, I see the alliance network as not only a social entity that is potentially discernible in the material record, but also one which will elucidate social structural developments, and thus provide insights on social reproduction. As Bender comments, 'These are the structures that underwrite social reproduction. Alliance is about circulation and exchange, marital and material.

To a greater or lesser degree this circulation makes demands upon productivity and production" (Bender 1981:153). Indeed, the analysis of the alliance network is emerging as a powerful and profitable unit of analysis in past hunter-gatherer studies. The character of alliance networks is discussed in Chapter 5, but I should note here that I shall use the term social region to apply to the geographical area encompassed by an alliance network. By doing this, we can provide for an on the ground analysis and try and establish the spatial parameters of alliance networks and their development through time. This discussion is, of course, premised on the assumption that "Archaeologically, the existence of past networks can be inferred from evidence for exchange and stylistic variation" (Soffer 1985:247). The recognition of alliance networks in the material record is dealt with in Chapter 5.

In the Thukela Basin itself, I will propose that during the early Holocene one widespread alliance network covered the upper Thukela Basin and that with time this network disintegrated and by 4000 BP was replaced by three alliance networks which then remained intact until 2000 BP, when further structural developments occurred. One problem with this scheme is that two of the 4000-2000 BP alliance networks are constituted by only one recently excavated and intensively analysed site. However, as I will argue in Chapter 5, I believe the material remains from these sites are sufficiently different to warrant seeing them as belonging to different social regions.

Following on from the above discussion, it is appropriate to consider the question of scale of analysis. At the outset, I

should say that I agree with Miller & Tilley (1984a) that no rigid definition of the appropriate scale of analysis for archaeological studies exists, but that this is ultimately determined by what is being researched. Marquadt considers the scale of analysis as a mode of entry, and that its rigorous and critical application can lead to "an understanding of productive forces, social relations, ideologies, and the multiple and contradictory relations among them" (Marquadt 1985:69). In the present research context I concentrate primarily on three levels - the research area (i.e. the Thukela Basin), the alliance network, and social relations (with a specific focus on gender relations).

On the first level, I have isolated the Thukela Basin as my research area, or focus of study, with the specific research aim of documenting and understanding Thukela Basin Holocene hunter-gatherer social history. Thus, both the temporal and spatial limits of my study are prescribed, and, in terms of Marquadt's understanding of scale, these can be viewed as the first mode of access. This is the largest scale at which the analysis will be conducted. While I acknowledge the validity of placing one's study in broader context, in the sense of Wallerstein's (1974, 1976) world-system approach, this particular study is intentionally parochial, as my aim is the development of a regional hunter-gatherer history. I hasten to add, however, that I will draw on information and insights generated in other areas when appropriate to this study, and in the final chapter some of the Thukela Basin conclusions are briefly compared with those from studies elsewhere in South Africa.

The second level at which this study has been pitched, that of alliance networks, has just been outlined and there is no need to repeat that discussion. The third level, which is the subject of the following discussion and Chapter 6, concerns the social relations of production, defined earlier as the relations people enter into to produce society as a social and economic unit. Here, I will attempt to infer the changing nature of the social relations which I consider instrumental in the development of the society under study and, as mentioned above, will concentrate on gender relations.

By no means are these the only scales at which to approach the analysis of hunter-gatherer society, but they are the ones considered appropriate to the present study.

Within the context of my theoretical framework, I have argued that, in the final analysis, the driving force of history are the social relations of production. Thus, having dealt with the forces of production and the structural development of Thukela Basin 7000-2000 BP hunter-gatherer society, attention needs to be focused on social relations. Elucidating social relations in the archaeological past is a difficult and complex endeavour, and this is especially the case in my Thukela Basin study because of the absence of burials and thus burial data, which are regarded by some (e.g. Soffer 1985) as the traditional indicators of status distinction. Nevertheless, a close reading of the archaeological record informed by a coherent theoretical framework and careful extrapolation from the ethnographic record and other pertinent sources, allows us to make some inferences regarding social relations of production. It needs to be

emphasized however, that my rejection of the positivistic notion of hypothesis testing does not mean a casual attitude to the evaluation of interpretations. On the contrary, I have submitted that there are other criteria by which to evaluate the utility of interpretations, and these should apply to this study.

In Chapter 6, I argue that a gender related struggle was the primary component informing the development of the society under study. More particularly, that during the early stages of the hunter-gatherer occupation of the research area, the male-female relationship was typified by male dominance and that this relationship was thereafter the site of considerable struggle which saw women improving their social position, and perhaps even reaching parity with men.

In trying to understand the changing social relations in Thukela Basin 7000-2000 BP hunter-gatherer society, I have taken my cue from Begler (1978), who argues that gender provides the grounds for the separation of egalitarian hunter-gatherer society into two sociocentric statuses which are not only constant, but, unlike age, are ascribed for life. This point is also supported by Woodburn (1982). This understanding served to give my analysis of Thukela Basin hunter-gatherer social relations a specific gender focus, and, consequently I sought to elucidate the features which may have influenced this relationship through the study of the archaeological record as well as ethnographic and other data. While my specific focus is on gender relations, I acknowledge that these are not the only potential area of conflict and tensions in social relations in hunter-gatherer societies. Indeed, as Bender (1985a, b) and Lourandos (1985a)

have noted, tensions between age groups and within and between lineages, may also have influenced the historical development of hunter-gatherer societies. However, as will be argued later, I do not believe that these phenomena were prevalent in Thukela Basin Holocene hunter-gatherer society.

Returning to the Thukela Basin hunter-gatherer social relations, study of the available archaeological and other pertinent data suggests that many features that would have precipitated an unequal gender relationship in which males held power, typified early Holocene Thukela Basin hunter-gatherer society. These include migration and social, demographic nutritional and economic stress, as well as subsistence strategies which relied more on hunted food in the early part of their Holocene occupation of the Thukela Basin, than later on. Thereafter, substantial social, demographic and economic changes occurred and these, it will be submitted, influenced the diminishing intensity of many of the factors that would have influenced male dominance to begin with. Of critical importance is the proposition that through time women contributed greater amounts to the diet. This must be seen in the light of the assertion, following Leacock (1978) and Sanday (1973, 1974, 1981), that women's social status is not simply contingent on the scale of their subsistence contribution, but on the extent to which they control their working conditions and distribution of the goods they produce. Drawing on Draper's (1975) findings among the Kalahari hunter-gatherers, I believe that Thukela Basin hunter-gatherer women would have had control over their production process and the distribution of the food they

gathered, and on the basis of this assumption, I propose that the women's increased contribution to the society's subsistence led to their increased power in that society.

In contrast to this scenario, we also need to consider the possibility of women losing status through time. Cucchiari (1981) has submitted that the European Upper Palaeolithic (17 000-14 000 BP) was typified by a gender revolution in which women experienced a drop in status. Her argument is based on the symbolic expression of gender concepts, which suggests that there was

"an initial stage characterised by a well-defined, highly specific feminine concept and correspondingly weak masculine representation; a middle period of elaboration in which both gender signs are related to each other in different contexts and mapped onto other kinds of signs; and finally, toward the end of the Upper Palaeolithic, a clear, graphic, representation of the phallus but concomitant weak and abstract rendering of feminine signs" (Cucchiari 1981:63)...

I am unable to make a direct comparison between Cucchiari's conclusions on Upper Palaeolithic women and mine on Thukela Basin Holocene hunter-gatherer women because her conclusions are based on data unavailable in my research context. However, in view of the information generated by my research programme and inferences drawn from them (see above and Chapter 6), it would seem that the scenario of Thukela Basin Holocene women improving their social standing through time is more plausible.

As mentioned earlier, my reading of Thukela Basin 7000-2000 BP social relations does not in itself exclude the possibility of other social tensions and struggles such as those between age groups and between members of lineages or even between lineages, being present in the society under study.

However, I do not believe that these conditions obtained in Thukela Basin hunter-gatherer society. Study of the situations in which they have been proposed, indicate clear and substantial differences between the social conditions prevalent in those societies and the one under study here, with the former considerably more complex and, more importantly, containing evidence of social differentiation between males themselves.

Lourandos (1985a) has submitted that in Australian Aboriginal society elders would have achieved power, prestige and status, while Bender (1985a), focusing on the Neolithic of Brittany and the American midcontinental Adena-Hopewell complex, argues for the existence of lineages and the presence of power struggles within them and between them. These power struggles would have involved competition for the access to social and ritual knowledge. Both Bender and Lourandos have based parts of their arguments for social differentiation between men on burial data, but the absence of these data in the Thukela Basin eliminates the possibility of comparing these societies on that basis. However, comparison of the pertinent non-burial data shows clear differences between the Thukela Basin and other areas. In Australia, Lourandos (1985a) reports, for example, the existence of large scale, labour-intensive, artificial drainage systems that were employed in marginal environments to facilitate eel harvesting, evidence of management for ceremonial purposes, as well as the existence of elaborate and extensive forms of storage. Bender (1985a) also reports the existence of large earthworks in her study areas and also highlights other evidence which suggests social differentiation, such as the Middle

Woodland period of the Adena-Hopewell complex, where "other interlocking strands of evidence - the craft specialization and proscribed distribution of prestige items - strain the notion of an entirely egalitarian ethos" (Bender 1985a:47).

Thus, the hunter-gatherer societies reported by Bender and Lourandos are more complex than the Thukela Basin 7000-2000 BP society and display evidence of social differentiation in not only burial data. I believe that the Thukela Basin society under study represents an 'egalitarian' type situation with no development of lineage structures or social differentiation between men. In other words, a situation which in terms of male relationships is closely akin to that which pertains among recently studied Kalahari hunter-gatherers (e.g. Lee 1979). In this respect, it is of interest to note that Lourandos draws a distinction between Tasmanian and Australian hunter-gatherer societies and comments that "In some ways, therefore, Tasmania approximates the hypothetical model of an early, more 'egalitarian' Australian society" (Lourandos 1985a:411).

CHAPTER 4

INTENSIFICATION: THE CHANGING NATURE OF HUNTER-GATHERER
OCCUPATION AND SUBSISTENCE IN THE THUKELA BASIN 10 000 - 2000 BP

This chapter investigates the forces of production, defined in Chapter 3 as society's technological and environmental conditions, as well as their organisation of labour. In doing this, I focus on the changing nature of the Thukela Basin hunter-gatherer settlement patterns and subsistence strategies. While these can be considered to be relatively straightforward tasks, working from the archaeological record, establishing the nature of the organisation of labour is more difficult. Although comprehending a society's organisation of labour is crucial to providing a complete as possible statement on it, it is beyond the scope of this study. It nevertheless remains a subject requiring attention by LSA archaeologists.

The theme within which the changing human/environment relationship is to be conceptualised, is that of intensification. Intensification is defined in the Oxford Dictionary as "increasing productivity per given area". This rather limited definition which implies increased production and productivity, requires additional clarification. The difference between productivity and production also needs to be clearly understood, as improved productivity need not necessarily result in increased production (Bender 1978). Production refers to that which is

actually produced whilst productivity refers to the efficiency of producing it. Improved productivity may therefore be the production of the same amount as before but in a shorter period or with less energy expenditure. Bender commented further that where intensification

"is about increased productivity but not increased production it need not be associated with social or demographic change. It may have little or nothing to do with pressure and have no bearing on the commitment to food production. It becomes significant only when associated with increased production" (Bender 1978:205).

Intensification can thus refer to increases in both productivity and production. In this study I concentrate on the increase in production. In essence, I will submit that the Thukela Basin 7000 - 2000 BP hunter-gatherers progressively extracted more food from nature. This involved an increased emphasis on already exploited resources as well as a diversification of the diet.

It is also likely that improved productivity accompanied this increased production. This is suggested by the fact that an increased emphasis was placed on plant foods relative to hunting. Lee (1979) argues that among the !Kung San hunter-gatherers, plant food gathering is considerably more efficient than hunting, "with a day of gathering producing about 67 percent calories on average more than a day of hunting" (Lee 1979:262). There is no reason to believe that this same general feature would not have typified the Thukela Basin hunter-gatherer society.

Increasing production in hunter-gatherer societies is most likely to be associated with two variables, namely an increasing population, and/or people occupying an area for longer

periods. In this chapter, it will be submitted that both these phenomena characterised the Thukela Basin hunter-gatherer society. In other words, that along with population growth, people were spending more time in particular areas. This would have been associated with a greater emphasis on some of the already exploited resources and the inclusion in the diet of new resources which were either less preferred or more difficult to exploit. This would contrast somewhat with the situation in the eastern Cape where H.J. Deacon argued that the 'process of population expansion did not involve adaptation to new kinds of foodstuffs, but rather the extension of the same pattern of resource utilisation to habitats in which the general resource strategy had previously been uneconomic' (Deacon, H.J. 1976:165).

The relationship between population growth and changing subsistence strategies has greatly concerned many archaeologists over the last two decades, (e.g. Binford 1968; Binford & Chasko 1976; Cohen 1977; Osborn 1977; Parkington 1980; Straus 1977; Yesner 1985), and is critical to this study. But here I will highlight G. Clark's (1975) views on this issue, as these not only broadly encompass the views held by the others but also deal with it in the context of a pioneering population. The Thukela Basin early Holocene hunter-gatherers, as will be submitted, were probably pioneers. According to G. Clark during the

"pioneering stage the total population will increase until the point is reached at which its needs can no longer be met by customary means from the available land ... If social constraints are used to maintain a population at its existing density, then economic and social life might continue without changes of a kind likely to be reflected in the archaeological record. The converse is true that if any one or more of a number of ways of increasing food-supply are adopted - for instance through the more effective use of areas already settled

... then more or less marked changes are likely to occur in economic and social structures allowing increased densities of population; and this in turn may precipitate significant changes in settlement and in social hierarchy' (Clark, G. 1975:27 & 28).

My one disagreement with G. Clark, and indeed with many others, is the explicit and sometimes implicit belief that population changes precipitate social changes. While, no doubt, they are interlinked phenomena, Clark himself points out that social constraints would have controlled population growth (see also Chapter 2), which, if anything, suggests the opposite, that social factors regulate population dynamics. What we need to explore are the circumstances under which population growth would have been viewed as advantageous and thus allowed to occur or even consciously encouraged, or, on the other hand, why it would have been considered detrimental and stifled. In the present context we are, as will be argued, dealing with a growing population.

These population and subsistence adjustments would also have people extracting their livelihood from progressively smaller areas. It is further submitted that these trends would have been associated with decreasing band range and nomadism (Hayden 1981). H.J. Deacon has suggested that 'the selection of plants of wide seasonal availability and the hunting of non-migratory antelope would have allowed the occupation of more restricted territorial ranges ...' (Deacon, H.J. 1976:165). The phenomena of decreasing band range and nomadism are key components of this study.

What are the causes of intensification? As implied in the foregoing quotation from Bender (1978:205), this phenomenon

is associated with demographic and social changes. Lourandos comments that the economic growth experienced by southwestern Victoria hunter-gatherer society "can be best described as due to a restructuring of social relations which placed increasing demands upon the economy and thus production" (Lourandos 1983:81). This view agrees with the theoretical stance adopted here: that within the relationship between the social relations of production and forces of production, to which population growth is linked in the present context, the social relations of production are ultimately determinant.

The rest of the chapter is divided into three sections. The first, and shortest, section deals with the Holocene peopling of the research area and occupation density, the second section deals with subsistence strategies and the third section is a discussion. In the second section the faunal and plant food evidence is tackled separately. The stone artefact and pottery evidence for subsistence changes is included in the plant food section.

THE EARLY HOLOCENE PEOPLING OF THE UPPER AND UPPER/CENTRAL THUKELA BASIN AND ITS OCCUPATION DENSITY

Fig. 4:1 illustrates the distribution of terminal Pleistocene sites in Natal and the apparent beginnings of site use in the Thukela Basin between 10 000 and 2000 BP.

The study of 20 excavated sites and ten open-air sites in the research area has failed to reveal evidence of a terminal

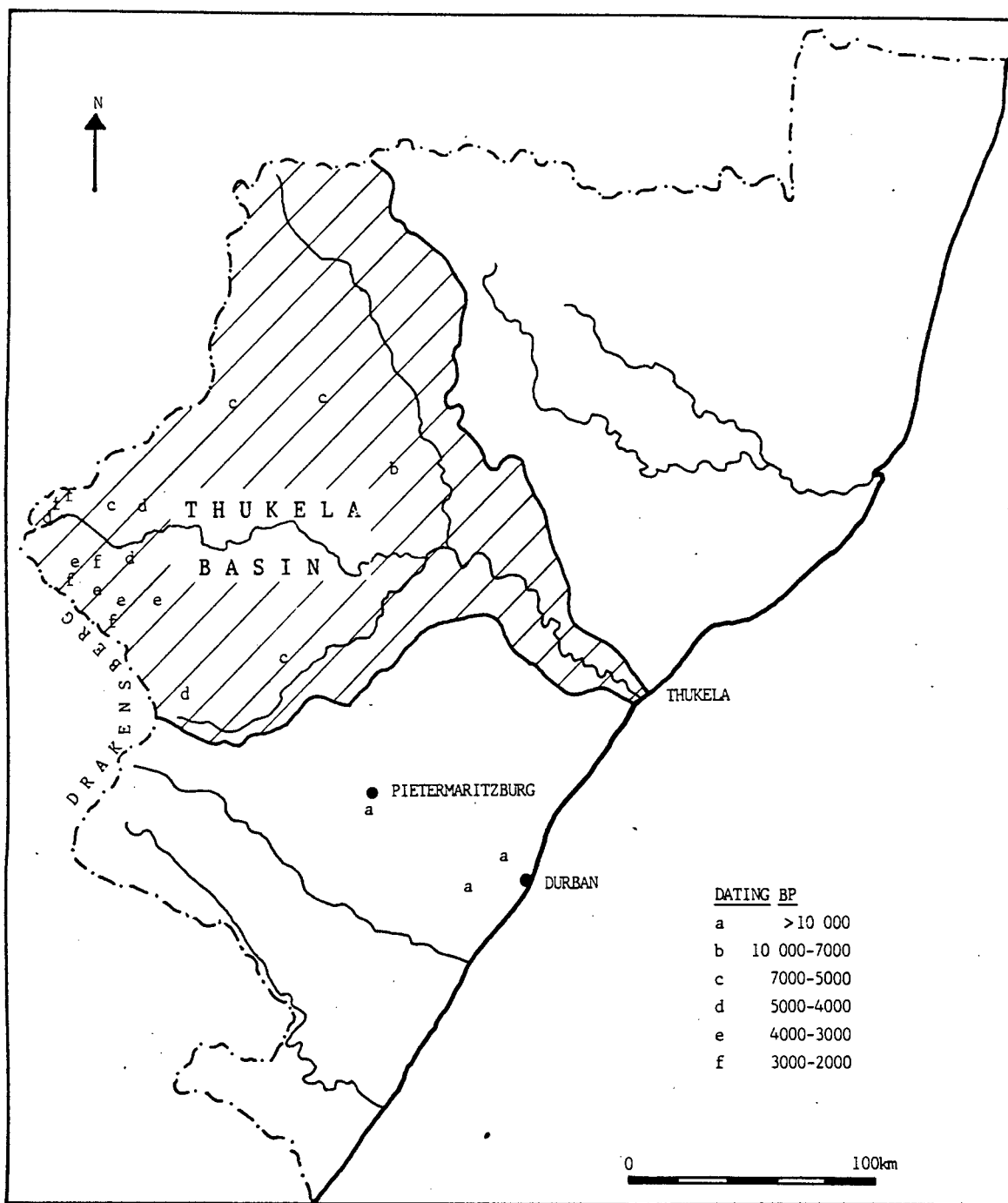


Fig. 4:1 Terminal Pleistocene sites in Natal and the apparent beginnings of site use in the Thukela Basin between 10 000 and 2000 BP.

Pleistocene presence, suggesting either no, or a very ephemeral, occupation of this area then. Evidence for terminal Pleistocene habitation of other parts of Natal derive from Shongweni South Cave (Davies 1975), Shongweni North Cave (Vogel pers. comm.), Umhlatuzana Shelter (Kaplan pers. comm.) and perhaps from open scatters in the Pietermaritzburg area (Maggs pers. comm.). The Shongweni South and North Caves and Umhlatuzana Shelter are eight kilometres apart and are at altitudes of roughly 460 m (1500 ft) and occupy the Coastal Forest and Thornveld vegetation zone (Acocks 1975). The Pietermaritzburg sites are at altitudes of roughly 670 m (2200 ft) and located in the Ngongoni-Veld vegetation zone, close to its boundary with the Valley Bushveld (Acocks 1975). It is possible that terminal Pleistocene sites occur in similar altitudinal and environmental situations in the Thukela Basin, but these areas have not been surveyed.

Definite evidence of early Holocene hunter-gatherer occupation of the Thukela Basin comes only from Sikhanyisweni Shelter, dated to 10 000 and 9650 BP. The almost sterile archaeological deposits underlying the lowermost dated levels at Nkupe Shelter and Mgede Shelter (6650 and 6550 BP respectively) may date to this period. Short of further evidence though, this suggestion cannot be treated as anything more than speculation. Unlike the terminal Pleistocene then, some evidence does exist for an early Holocene occupation of the Thukela Basin, but it must be concluded at this juncture that it was ephemeral in nature.

Evidence of early Holocene occupation elsewhere in Natal comes from Good Hope Shelter in the southern Drakensberg (Cable

et al 1980), Belleview in East Griqualand (Carter 1978), and probably Umhlatuzana Shelter (Kaplan pers. comm.).

An increasing number of Thukela Basin sites were occupied after 7000 years ago (Fig. 4:1). The 7000 - 5000 BP occupation of the research area appears to have been centred on the grassland regions varying in altitude between 1372 m (4500 ft) and 1616 m (5300 ft). Only thereafter did hunter-gatherer communities spread above 1677 m (5000 ft), into the Drakensberg.

No deposits which definitely date to before 2000 BP have so far been recovered from the central Thukela Basin. However, as only two small rock shelters have been excavated in this area, it would be premature to argue for ephemeral, or non-occupation of this area before then. But this seeming absence of pre-2000 BP deposits assumes added significance when considering that all other dated excavations in the research area, save Driel Shelter (Maggs & Ward 1980), have produced deposits dating to this period.

The chronological/spatial distribution of sites clearly suggests that the research area was unoccupied before 10 000 BP and furthermore, that its peopling occurred from the lower altitudes. As sites belonging to the terminal Pleistocene have so far only been found in the Durban-Pietermaritzburg area, to the south and east, it is tempting to identify this as the source area. Moreover, the occupation of the Thukela Basin appears to coincide with either a significant lowering of the population density, or perhaps even the total depopulation, of the lower altitudes to the south of the Thukela River. This is suggested by the fact that Umhlatuzana Shelter (Kaplan pers. comm.) and the

Shongweni North and South Caves (Davies 1975; Vogel pers. comm.) were not occupied between 8000 and 4000 BP, and that Cable's (1984) sites in this area, Umbeli Belli and Borchers Shelter, have no LSA deposits dated to before 3500 BP. However, as the regions to the north and east of the Thukela Basin have not been adequately surveyed, this suggestion is offered tentatively.

A rough gauge of human habitation density can be obtained by plotting the number of sites occupied per time period (Deacon, H.J. & Thackeray, J.F. 1984; Mellars 1973; Straus 1977). Such an exercise has been undertaken for the 10 000 - 2000 BP period in the research area, using data collected during this project and from previous research. Data from previous research were only considered when they were sufficiently detailed to plug them reliably into the chronological framework established during this project. These latter sites include Ebusingata Cave (King & Chubb 1932), Eland Cave and Buys Cave (Stein 1933), six open sites from the slopes of the Drakensberg (Wilson 1955), Main Cave (Willcox 1957), and Sebaaini Shelter and Shirley's Shelter (Pager 1971; Willcox 1971). I re-analysed the Main Cave and Wilson's (1955) open-air assemblages. Undoubtedly some of the age estimates will be inaccurate, but it is unlikely that they will be more than 1000 years out on either side. These inaccuracies will thus, if anything, produce a skewing of the patterning, but not a false pattern.

The majority of the sites (12 out of 19) used here were rock shelters. Judging by the nature of their deposits and the subsistence remains and cultural material recovered from them, all the rock shelters appear to represent bases from which family

groups or bands exploited the surrounding countryside. Establishing the nature of the occupation of the open-air sites, which besides lacking deposits produced no faunal and plant food residue, is more problematic. However, the close correspondence between the artefact assemblages recovered from seemingly contemporary open-air sites and rock shelter deposits, suggests that similar ranges of activities were performed at both sets of sites.

Despite the inevitable flaws that characterise this type of exercise, which, to reiterate, is not regarded as more than a rough guide of occupation density, the emergent pattern is instructive (Fig. 4:2): from only one site known between 10 000 and 7000 BP the number of sites increases dramatically. The 7000 - 4000 BP period exhibits the most marked increase in the number of sites occupied, from none to seven.

This pattern would seem to indicate a population increase between 10 000 and 2000 BP. Furthermore, it would also appear, that population grew most rapidly between 7000 and 4000 BP.

SUBSISTENCE STRATEGIES

Fauna

All the sites produced macrofaunal remains. The macrofauna from the Sikhanyisweni Shelter early Holocene deposits and the Nkupe Shelter 1984 excavation of levels dating from 6650 - ca 4250 BP are not yet analysed. Sikhanyisweni Shelter was the only site lacking microfaunal remains. While microfauna might not

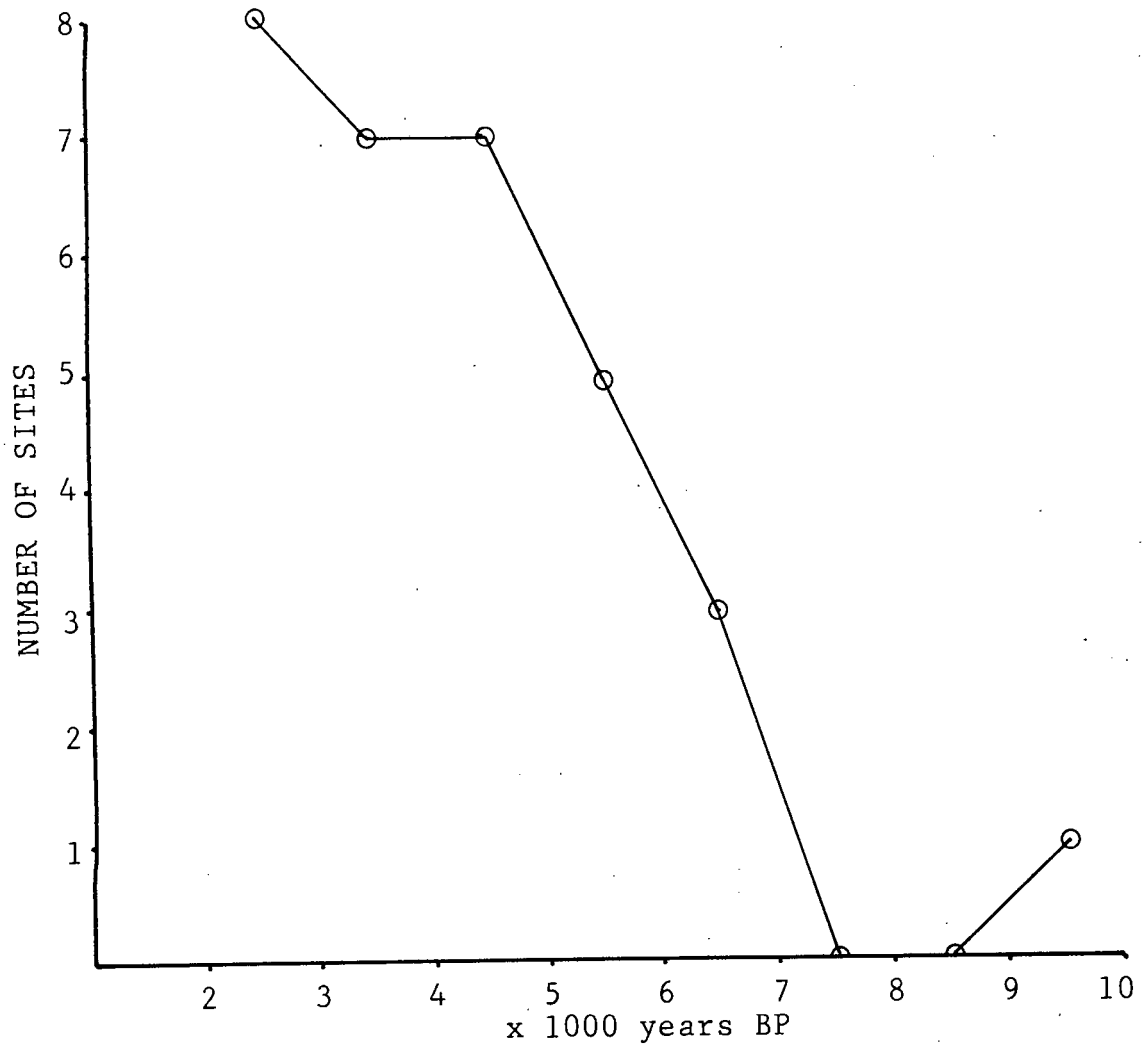


Fig. 4:2. Number of archaeological observations 10 000 -2000BP in the Thukela Basin. This figure suggests an increasing intensity of occupation during this time.

have existed at this site to begin with, it is more likely that they were present and that their absence relates to post-depositional factors, as it appears that this site was unsuitable for the preservation of organic remains.

The macrofaunal assemblages are dominated numerically by bovids, especially in the pre-4000 BP assemblages (Fig. 4:3). Bovid's comprise over 50% of the Minimum Number of Individuals (MNI's) of nine of the 12 (i.e. 75%) pre-4000 BP faunal assemblages, but thereafter they are over 50% at only two of the nine (22%) assemblages. Nkupe Shelter and Diamond 1 display this pattern best (Fig. 4:3). At Diamond 1, for example, bovids decrease from 70% of the ca 4000 BP MNI's to 38% at ca 2100 BP.

The bovid assemblages themselves are numerically dominated by small and small/medium animals, save the Diamond 1 ca 4000 and 2100 BP assemblages where large and large/medium animals dominate (Fig. 4:4). Wildebeest/hartebeest and blesbok are the only individually identified medium/large bovids, while the best represented small and small/medium bovids are vaalribbok, mountain reedbuck, oribi and klipspringers.

The decreasing bovid proportions correspond with increasing dassie and hare proportions (Fig. 4:5). At Gehle Shelter and Mgede Shelter, hare and dassie proportions begin increasing in the earliest deposits, and at Nkupe Shelter after decreasing in proportion between 6650 and ca 5250 BP they increase consistently. Combined dassies and hares comprise less than 15% of nine of the 12 (75%) pre-4000 BP assemblages, but thereafter comprise over 15% of all the nine assemblages. This trend is most pronounced at Diamond 1, where dassies and hares

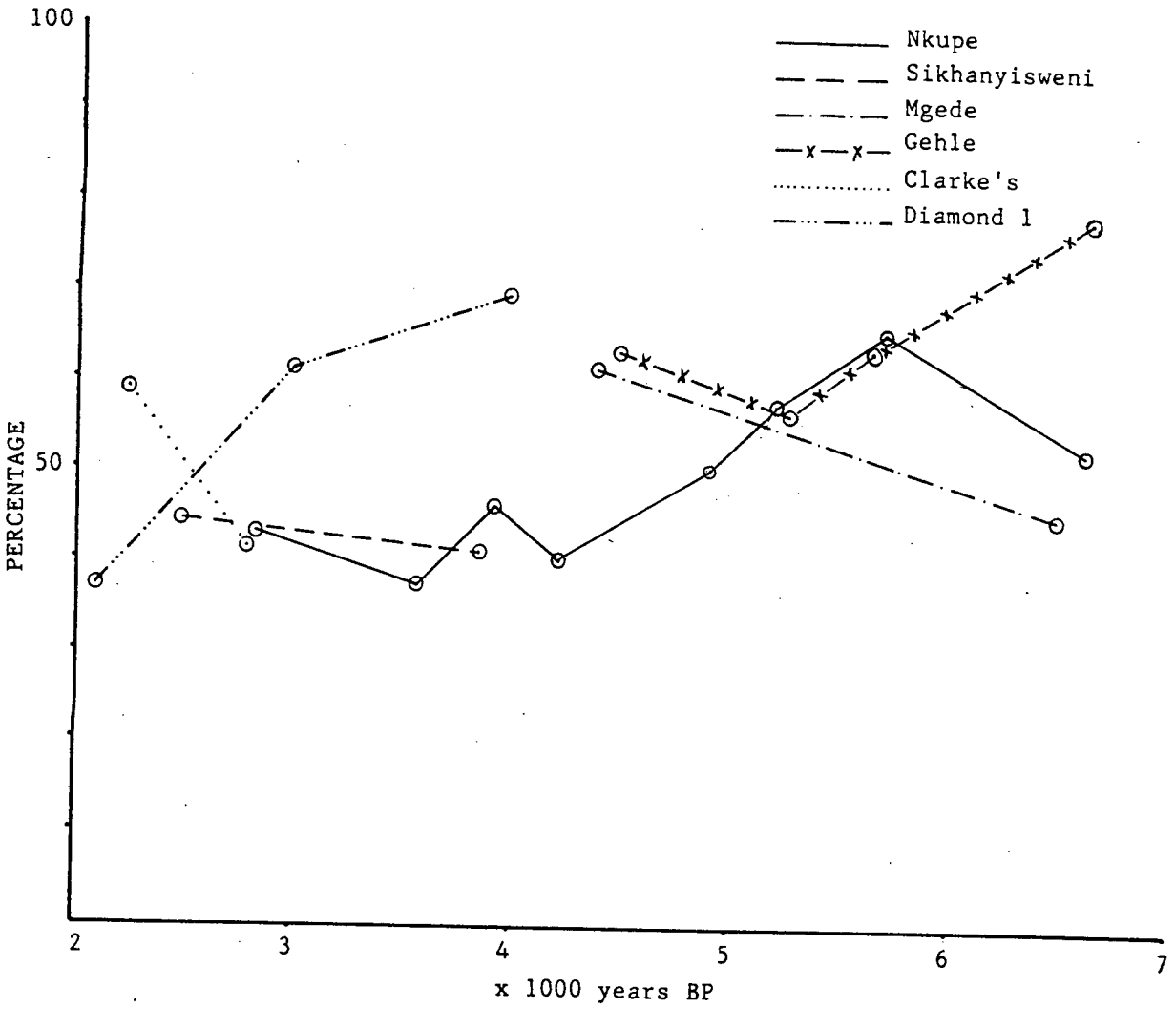


Fig. 4:3. Bovids as proportions of the total fauna.

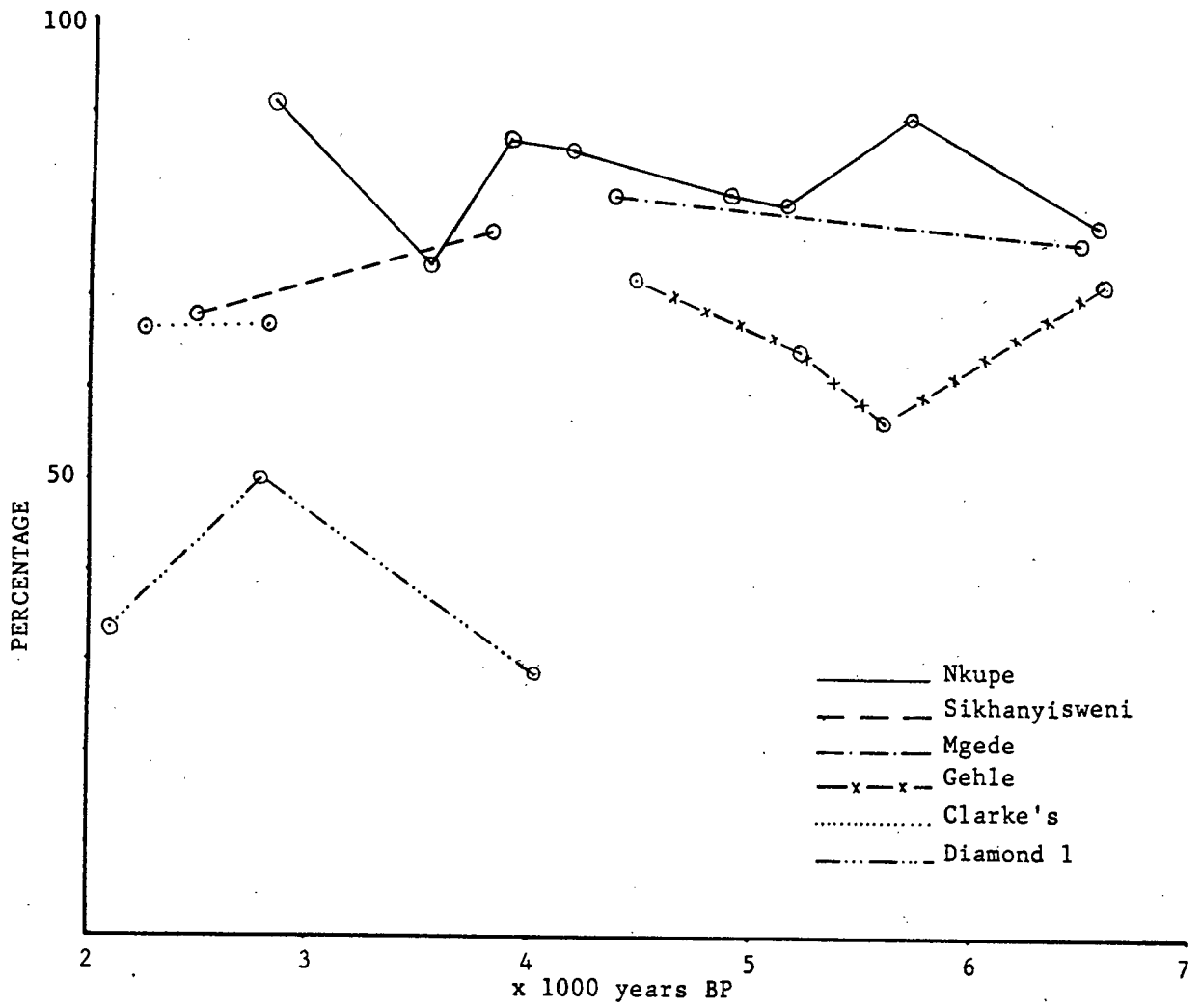


Fig. 4:4. Small and small/medium bovids as proportions of the total bovids.

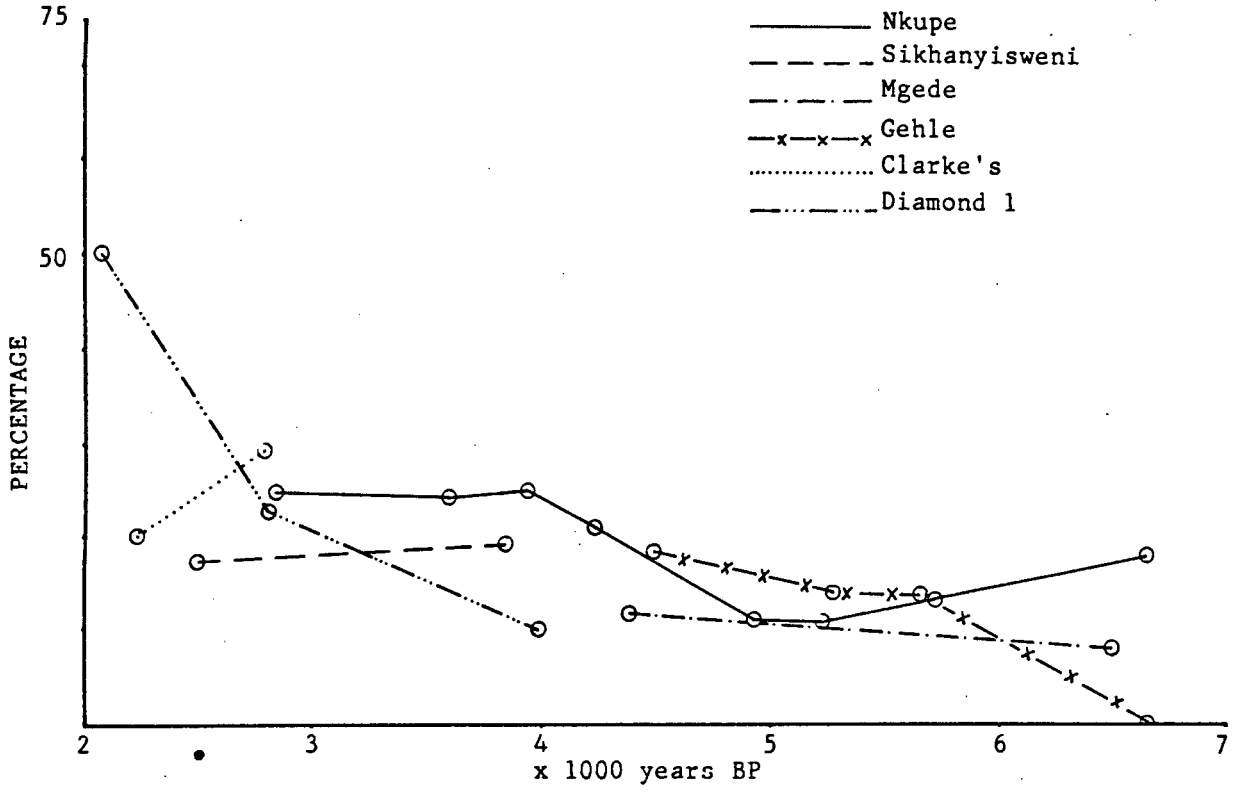


Fig. 4:5. Combined dassies and hares as proportions of the total fauna.

increase from 10% to half the faunal assemblages between ca 4000 and ca 2100 BP.

Carnivores represent the next largest group of animals, generally varying between 6 and 16% of the macrofaunal assemblages. No temporal or spatial trends are discernible in their distributions, however. Smaller carnivores such as wildcats, caracal and serval are dominant, but larger ones such as leopards and lions do occur, especially at Nkupe Shelter.

The relatively high carnivore proportions encountered raise several questions. In particular, did they occupy these sites, and, if so, are their bones and parts of the macrofaunal assemblages not related to the human occupation? Alternatively, were the carnivores human prey?

The Kalahari hunter-gatherers eat a range of carnivores, such as wildcat, hunting dog, lion, jackal, leopard and caracal (Lee 1979; Silberbauer 1981). Furthermore, Brain commented that some of the animals represented at Pomongwe, "like the occasional leopard ... were perhaps hunted for their skins rather than their meat, although what is eaten or rejected appears to depend on the traditions of a particular people" (Brain 1981:32). While the above information raises the possibility that the Thukela Basin hunter-gatherers ate carnivores and/or used their skins, they obviously cannot be taken as more than a tenuous suggestion as to the presence of carnivore bones in the Thukela Basin deposits.

Klein (pers. comm.), who analysed the faunal assemblages, remarked that, "From your numbers, I think it is possible that carnivores could have been involved in accumulating several of the Thukela Basin assemblages ... especially for the assemblages

with more than 16% carnivores." However, according to Klein (pers. comm.) principal component analysis of the faunal assemblages, not yet done, should allow a more conclusive statement on the problem. But meanwhile, as only three assemblages have greater than 16% carnivores and all the sites produced large cultural assemblages, it is submitted that humans were primarily responsible for the macrofaunal assemblages, and thus the patterns reflected in them.

Besides the animals listed above, a wide variety of macrofauna was recovered, but they display no spatial or temporal distribution trends. These macrofauna include, aardvark, baboon, bushpig, honey badger, hippopotamus, mongoose (slender), otter (clawless), pangolin, porcupine, vervet monkey, warthog and zebra.

Fish remains do, however, reflect a spatial and temporal distribution pattern. Fish appear not to have been exploited before 4400 BP, but thereafter evidence of fishing appears simultaneously at Nkupe Shelter and Mgede Shelter. The Mgede Shelter 4390 BP deposits produced nine fish vertebrae representing at least one Barbus natalensis and possibly one Labeo rubromaculatus, as well as one possible fish hook. One fish hook was recovered from the ca 4250 BP Nkupe Shelter deposits. After 4000 BP, fish bones occur at Sikhanyisweni Shelter and Nkupe Shelter, the only 4000 - 2000 BP sites north of the Thukela River. The Sikhanyisweni Shelter remains were not identifiable, but the Nkupe Shelter fish were either B. natalensis or L. rubromataculus. Ten fish hooks were recovered from Nkupe Shelter.

Evidence of fish exploitation is absent from the sites south of the Thukela River, namely Gehle Shelter, Clarke's Shelter and Diamond 1. As fish occur in this area their absence cannot be attributed to their natural distribution, nor is it likely to be an artefact of preservation, especially, as the Diamond 1 and Clarke's Shelter bone were relatively well preserved. L. rubromataculus and B. natalensis enter the Drakensberg in spring and return to the lower altitudes at the end of summer. Migratory movements of L. rubromataculus are known where 'the fish were travelling in shoals so dense that people who waded into the water were able to kill them with sticks' (Crass 1964:74). The inevitable conclusion, therefore, is that people south of the Thukela River before 2000 BP hardly, if at all, exploited fish.

Next we consider the microfaunal data, with emphasis on the way in which the microfauna entered the rock shelter deposits. Avery (1982) ruled out the possibility that microfauna would have lived and died in the rock shelters in any great numbers, as most animals would not inhabit or enter these open habitats voluntarily. We thus have to investigate possible outside agents. While carnivores such as black-backed jackals, and especially wildcats and genets eat rodents, they defecate out in the open (Avery 1982) and thus can be eliminated.

Predators whose daily active periods do not coincide with that of the microfauna can also be eliminated. At Nkupe Shelter, Mgede Shelter and Gehle Shelter, and excluding the Nkupe Shelter bats which occur in negligible quantities anyway, diurnal animals, moles and molerats generally comprise between 90 and

100% of the microfauna. Some of the shrews are nocturnal as well as diurnal. But, besides the Nkupe Shelter ca 4250 and 4950 BP assemblages where the shrews represent 25 and 33% of the MNI's respectively, they are poorly represented, always 20% or less. Thus, nocturnal predators such as Barn Owls, Spotted Eagle Owls and Cape Eagle Owls which roost in rock shelters may account for some of the microfauna, but they cannot be regarded as the major contributors.

Even though some birds are major microfaunal predators, they too can be eliminated. Few predatory birds roost in rock shelters, and those that do, do so in an inconsistent manner and are highly unlikely to have produced significant accumulations of microfaunal remains in restricted areas (Burden pers. comm.). In addition, no suitable roosting spots were noticed in the immediate vicinity of the excavations.

Humans are the most likely candidates to have discarded substantial quantities of microfauna in rock shelters. Not only are they diurnal, but there are numerous accounts of hunter-gatherers, and other people, eating microfauna. This practice by the Thukela Basin hunter-gatherers would therefore, by no means be without precedent. Lee (1979) lists the microfauna eaten by the !Kung hunter-gatherers. Some overlap exists between these and those recovered from the Thukela Basin excavations. Avery (1982) cites other cases of humans eating microfauna, including some of the more common species recovered such as Otomys irroratus (vlei-rat), Dasymys incomtus (water rat), and Rhabdomys pumilio (striped field mouse). Maggs & Ward (1980) remarked that moles could have

been caught by people waiting at fresh mole hills by stabbing with spears as they detected movement in the soil.

The Mgede Shelter, Gehle Shelter and Nkupe Shelter microfaunal densities are illustrated (Fig. 4:6). These densities as well as the others that are to be presented in this chapter and Chapter 5, have been arrived at by dividing the number, or weight as in the case of corms, of items in each level by the volume of deposit (m^3) in that level. A clear pattern emerges from the microfaunal densities: before 4400 BP the densities are low, save for the Mgede Shelter 6550 BP and Nkupe Shelter 5760 BP assemblages, but thereafter two trends are visible. Nkupe Shelter displays a consistent increase in density, peaking at around 3500 BP, and then subsiding. The Drakensberg sites of Clarke's Shelter and Diamond 1, contain negligible microfaunal densities. The paucity of microfauna in these sites is unlikely to have been caused by poor preservation. If, as submitted earlier, microfauna were human food, then it would suggest that the Drakensberg hunter-gatherers hardly, if at all, exploited this resource.

While it would appear that a strong argument can be made for the human exploitation of microfauna, it is acknowledged that this requires further analysis. One avenue which may be useful is principle component analysis of the assemblages together with the knowledge of the different types of assemblages that humans and other predators are likely to deposit. The analysis of the intra-site distribution of microfaunal remains, for example, checking their proximity to potential roosting pots, may also prove instructive.

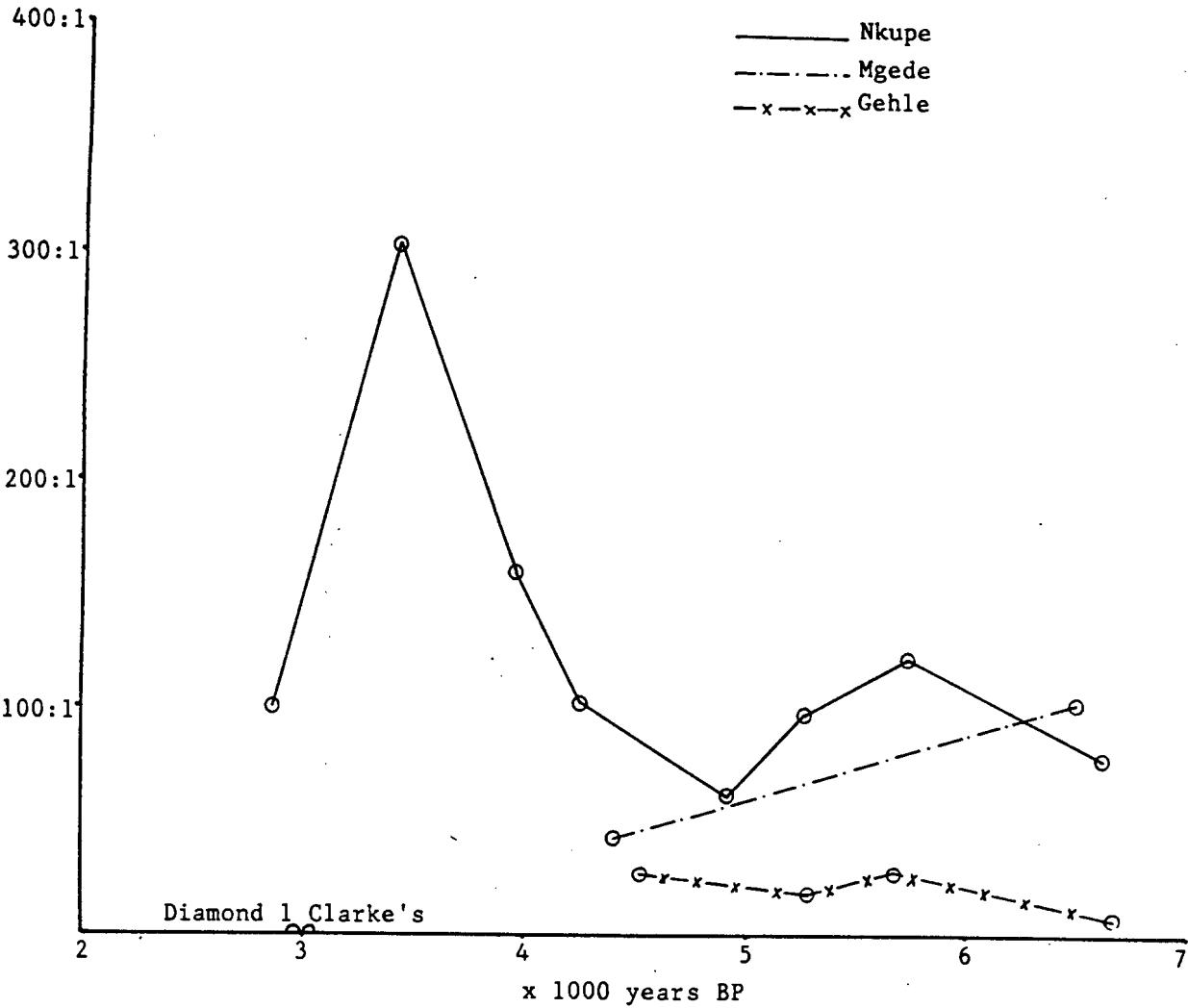


Fig. 4:6. Microfaunal densities:frequency per volume of deposit.

Small quantities of freshwater mussel were recovered from the Nkupe Shelter 6650 - ca 5250 BP and 3950 - 24480 BP deposits, the Mgede Shelter 6550 and 4390 deposits and after 3850 BP at Sikhanyisweni Shelter. All these sites are north of the Thukela River. The absence of freshwater mussels in the Drakensberg sites probably reflects its non-occurrence in this area, but this explanation would not apply to Gehle Shelter.

The spatial and temporal exploitation of microfauna and fish show similarities: before 4400 BP no fish and generally small quantities of microfauna were exploited throughout the research area, thereafter, however, fish and large quantities of microfauna (at Nkupe Shelter) were taken by people north of the Thukela River whilst no fish and negligible quantities of microfauna were exploited to the south. On the basis of these subsistence discrepancies, I tentatively suggest that differing levels of intensification were reached by people living north and south of the Thukela River.

Plant foods

This section includes the evidence from the plant remains themselves as well as the lithic and pottery evidence which has a bearing on plant food exploitation.

Only Nkupe Shelter and Mgede Shelter produced substantial plant assemblages. The other sites all produced negligible assemblages, derived primarily from the uppermost deposits. Plant material discarded at Gehle Shelter and Sikhanyisweni Shelter would probably have been destroyed largely by post-depositional factors as these deposits appear to have been

unfavourable to organic preservation. The paucity of plant residue in the Drakensberg sites of Diamond 1 and Clarke's Shelter is however, less explicable. The Drakensberg soils are acidic, but probably not more so than the Biggarsberg soils in which Mgede Shelter and Nkupe Shelter are situated. Acidity levels within rock shelters would also be less than in adjacent areas (De Villiers pers. comm.). Both Clarke's Shelter and Diamond 1 contained soft and unleached deposits which appear at face value not unfavourable to organic preservation. Diamond 1 is well screened by trees and one would expect minimal wind disturbance of even light-weight plant remains. Clarke's Shelter, on the other hand, is a poorly screened open rock shelter and it is likely that some of the plant remains, especially the lighter pieces, would have been blown away. But, one would anticipate that at least some of the heavier pieces, for example corm bases, would have remained in situ.

This, however, is not the case. Thus, the absence of plant remains in the Drakensberg sites, will, for the meantime, have to remain unexplained.

Next we must examine the possibility that non-human agents introduced the seeds into the sites. To begin with, we can eliminate the possibility that fruits and berries were brought in on firewood. Fruits and berries are detached soon after the branch dies, and as there is an abundance of firewood in the vicinity of both Mgede Shelter and Nkupe Shelter, it is unlikely that people would have chosen to use green firewood. Fruit bats can also be eliminated, as Roesettus sp. is the only fruit eating bat that roosts in rock shelters, but when it feeds it

hangs in the food trees or a nearby tree and crushes the juice out of the fruit dropping the seed and pulp' (Milton pers. comm.). Moreover, no Rosettus sp. remains were recovered from these sites, suggesting that they were irregular occupants, if indeed they occupied them at all.

Other non-human fruit-eating candidates are birds, micromammals, pigs, baboons and monkeys. Micromammals can be largely discounted because, as mentioned earlier, they probably never occupied rock shelters in large numbers or for any length of time. Moreover, only three of the micromammal species identified are known to eat fruit (Smithers 1983). Of these Thamnomys dolichrus is represented by one individual in each of the Nkupe Shelter 3950 and 4590 BP levels and Graphiurus murinus is represented by one individual in the ca 5250 BP level. Rhabdomys pumilio, while more common than the other two at this site, comprises less than 10% of all the assemblages, save the ca 44250 (11%) and ca 5250 BP (14%) assemblages. R. pumilio occurs at Mgede Shelter, but comprises between a quarter and a fifth of the microfaunal assemblages.

Numerous types of birds eat fruits and berries and some frequently roost in rock shelters, but they are unlikely to have introduced large proportions of the seeds into the deposits. Birds almost always eat fruit and berries on the spot, defecating the seeds at the same place (Burden pers. comm.). However, had they returned fruits and berries to rock shelters, the seeds would have been defecated whole as none of the local birds are known to crack open seeds (Burden pers. comm.). Had the seeds

entered the deposits, especially the copious soft ash deposits, whole and fresh, they would almost certainly have survived unbroken. Negligible proportions of whole Podocarpus falcatus and other species of seeds were recovered from the Nkupe Shelter ca 5250 -2480 BP and Mgede Shelter 4390 BP deposits. An additional argument against birds as major seed contributors, is the absence of suitable roosting places in the immediate vicinity of the exvacations.

Baboons crack open seeds, but the study of faeces recovered from the Nkupe Shelter which may belong to baboons produced no seed remains. Furthermore, these faeces occurred primarily in the deposits dating within the last 3200 years with only four small pieces in the 3950 BP deposits, while seeds occur at this site from 6650 BP onwards. Pigs are unlikely inhabitants of rock shelters, and thus can also be eliminated as potential depositors of seeds.

Elimination of the most likely non-human agents, coupled with the fact that most of the fruits and berries recovered have known human uses (Table 4:1), strongly suggests that humans introduced the majority of the seeds recovered. Especially as the Nkupe Shelter cultural and food remains indicate intensive human occupation of this site.

Increasing numbers of seed remains were recovered from the Mgede Shelter and Nkupe Shelter deposits (Table 4:2). These increases do not simply reflect improved preservation, since favourable preservation conditions occur throughout, nor do they reflect greater volumes of deposit. Instead, they signal an increasing hunter-gatherer exploitation of fruits and berries.

	Fruit/ seed	Medicinal	Spinach	Beverage	Other details
<u>Acanthosicyos</u> sp.	x				
<u>Adenia</u> sp.	x		x		
<u>Asparagus</u> sp.		x	x		
<u>Calodendron capense</u>					Brush
<u>Canthium</u> sp.	x	x			Rich in oil
<u>Cassia</u> sp.		x			
<u>Clerodendron</u> sp.	x	x		x	
<u>Cocculus</u> sp.	x	x			
<u>Colpoon</u> sp.	x	x			
<u>Commiphora</u> sp.	x	x	x		Roots chewed
<u>Cucumis</u> sp.	x	x	x		
<u>Curtisia</u> sp.	x				
<u>Cussonia</u> sp.	x				
<u>Cyperus</u> sp.		x			Tubers eaten raw Corm eaten
<u>Diospyros</u> c.f. <u>lycoides</u>					
subsp. <u>guerkei</u>	x				
<u>Diospyros whyteana</u>	x				Roots chewed
<u>Euclea</u> sp.	x	x		x	
<u>Fadogia</u> sp.	x		x		
<u>Ficus</u> sp.	x				
<u>Ficus</u> c.f. <u>solicifolia</u>	x				
<u>Gossypium herbaceum</u>		x			
<u>Grewia</u> sp.	x	x			
<u>Grewia tenax</u>	x	x			
<u>Grewia occidentalis</u>	x	x			
<u>Landolphia</u> sp.	x	x			
<u>Leucosidea sericea</u>		x			
<u>Melianthus</u> sp.		x			
<u>Mormidica</u> sp.	x	x	x		
<u>Myrica</u> c.f. <u>pilulifera</u>	x	x			
<u>Myrsine</u> sp.		x			
<u>Ochna</u> sp.	x				
<u>Olea africana</u>	x	x			
<u>Olea capensis</u>	x	x		x	
<u>Ozoroa</u> sp.	x				Rich in oil
<u>Pachystigma</u> sp.	x				
<u>Podocarpus latifolius</u>	x				
<u>Podocarpus falcatus</u>	x				Rich in oil
<u>Prunus africana</u>	x				
<u>Pygmaeothamnus</u> sp.	x		?x		
<u>Rapanea melanaphloes</u>		x			
<u>Rauvolfia caffra</u>		x			
<u>Rhoicissus</u> sp.	x				
<u>Rhyncosia</u> sp.					
<u>Salvadora angustifolia</u>	x	x			Tubers eaten
<u>Scutia myrtina</u>	x				
<u>Sterculia testa</u>	x				
<u>Thunbergia</u> sp.		x			
<u>Trochomeria</u> sp.					
<u>Ziziphus</u> sp.	x	x	x	x	Roots eaten

Table 4:1. Human uses of plants identified from Nkupe Shelter and Mgede Shelter. Information from Deacon H.J. (1976), Fox & Norwood Young (1982), Watt & Breyer-Brandwijk (1962) and Wickens (1980). Types identified from these sites with no apparent human usage include: Brachyciton sp., Celtis africana, Cnetis natalensis, Cucurbitaceae, Dalenchampia sp., Euphorbiaceae, Kiggelaria africana, Melianthus villosus, Peponium sp. and Toddaliopsis breidenkampii.

	Number of seeds/ seed fragments	Deposit volume (m ³)
NKUPE SHELTER		
Layer		
3 (3190-2480BP)	13294	2,16
4	4567	0,41
5 (3950BP)	1763	1,19
6	1039	0,87
7 (4590BP)	1160	0,65
8	392	0,57
9 (5760BP)	331	0,41
10 (6650BP)	16	0,71
MGEDE SHELTER		
Layer		
3 (4390BP)	1314	0,78
4 (6650BP)	181	0,48

Table 4:2. Number of seeds/seed fragments recovered from individual layers at Nkupe Shelter and Mgede Shelter. Deposit volume is also presented.

This suggestion is supported by the study of the seed densities (Fig. 4:7). The Nkupe Shelter and Mgede Shelter 6500 - 4000 BP densities are remarkably similar, displaying a general steady increase. Thereafter, Nkupe Shelter densities rise steeply, peaking in the ca 3500 BP deposits.

To obtain a visual impression of the general composition of the Nkupe Shelter seed assemblages, species comprising more than 3% have been plotted individually on a histogram (Fig. 4:8). Podocarpus falcatus overwhelmingly dominates the Nkupe Shelter assemblages, only once dropping below 70% and then to 69% at 6650 BP. P. falcatus fruits are edible (Fox & Norwood Young 1982) and its kernel is an oil source (Deacon, H.J. 1976). This may explain its popularity as well as the fragmentary nature of the seed remains. Of additional interest is that P. falcatus also dominates the Melkhoutboom Cave Holocene seed assemblages (Deacon, H.J. 1976).

Calodendrum capense and Celtis africana are the only other types consistently greater than 1%. The former, as with P. falcatus, is an oil source (Palmer & Pitman 1972), while the latter has no known human use. Large C. capense and C. africana trees grow today in front of Nkupe Shelter and thus it is possible that seeds from these trees dropped, or were blown, into the deposits.

C. capense and C. africana were the only seeds recovered from the lowest Mgede Shelter deposits (Fig. 4:9). In the overlying deposits however, P. falcatus dominates, representing just under 50% of the 6550 BP assemblage and over 90% of the 4390 BP assemblage. Olea capensis and

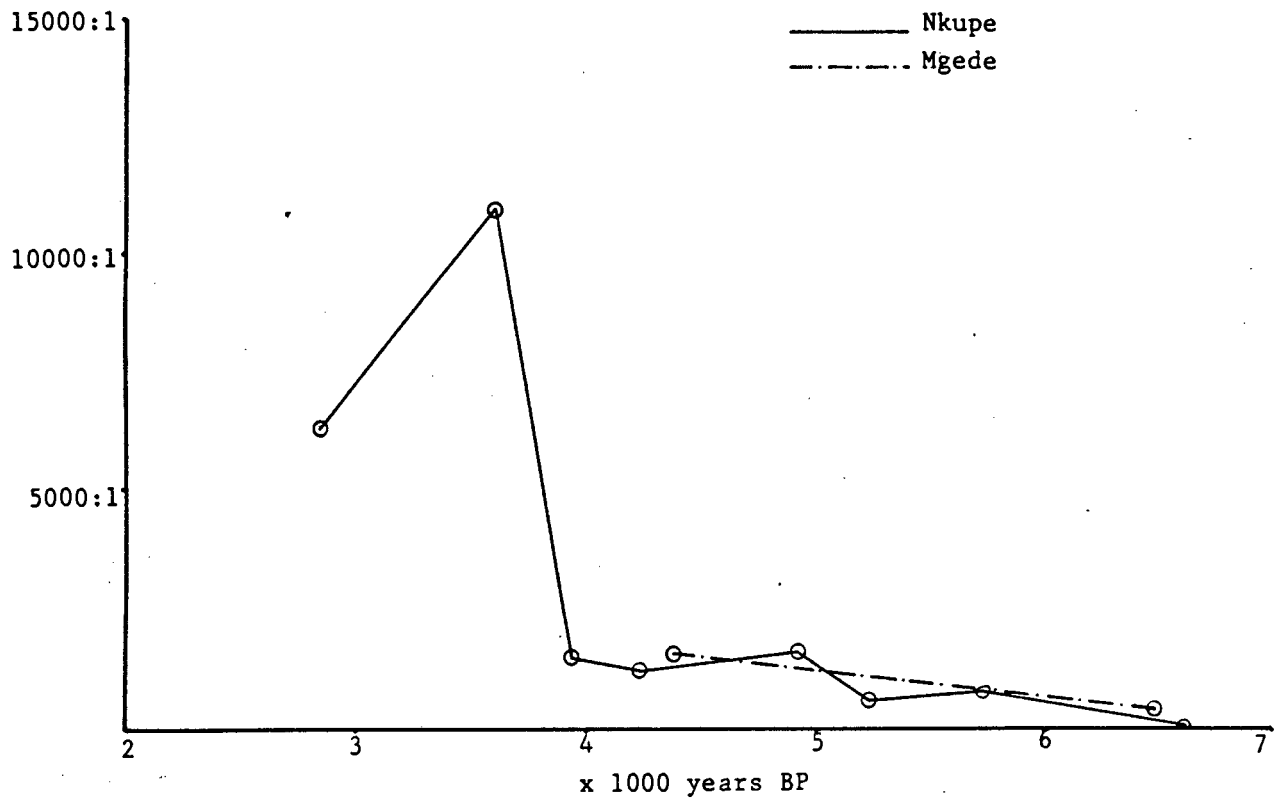


Fig. 4:7. Seed densities: frequency per volume of deposit.

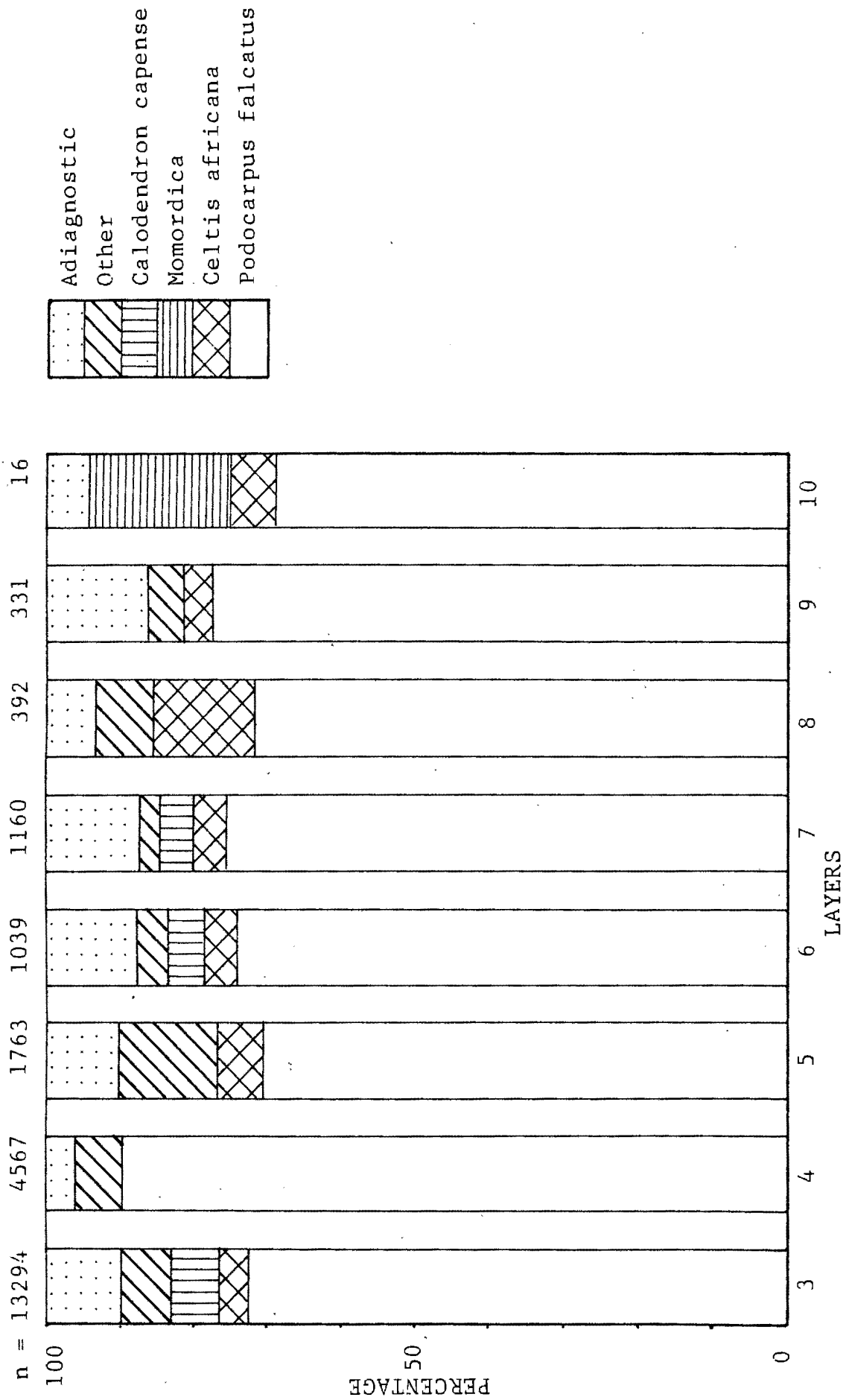


Fig. 4:8. Nkupe Shelter: composition of the seed assemblages per layer. Species comprising less than 3% are not individually plotted. Dating of the layers: N10=6650BP; N9=5760BP; N7=4590BP; N5=3950BP; N3=3190BP and 2480BP.

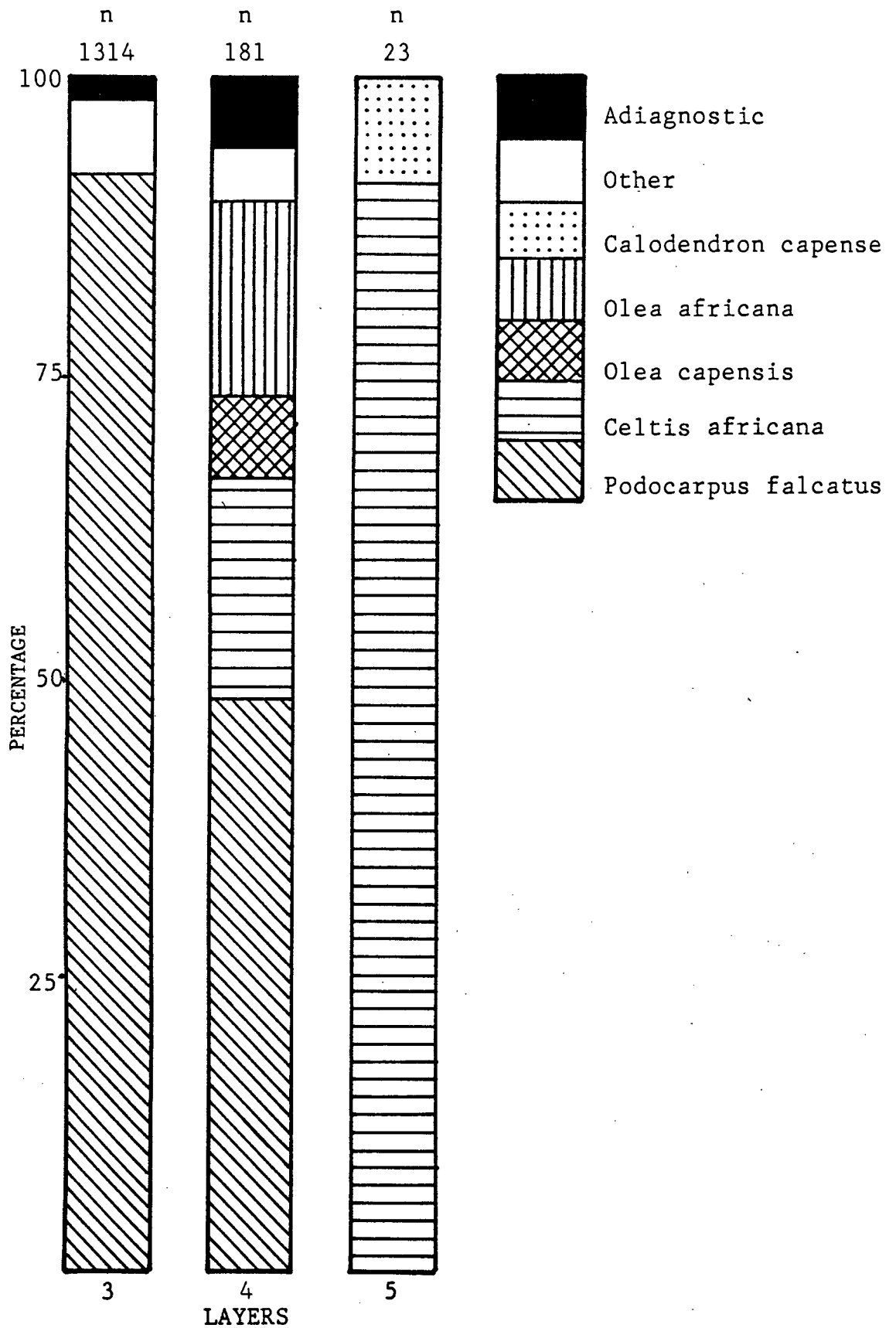


Fig. 4:9. Mgede Shelter: composition of the seed assemblages per layer. Species comprising less than 3% are not individually plotted. Dating of the layers: M4=6550BP; M3=4390BP.

O. africana, both edible and having other uses (Table 4:1), are the only seeds well represented at this site, together they comprise about a quarter of the 4390 BP assemblage.

The increasing seed densities are generally accompanied by commensurate increased diversity. This pertains both to the overall seed assemblages (Fig. 4:10) and the seeds with known human uses (Fig. 4:11), which display almost identical patterns. The only period not to show an increase in diversity with increased quantity is the ca 5250 -4590 BP period at Nkupe Shelter. These graphs also suggest that comparatively greater diversification occurred at Nkupe Shelter before 3950 BP than thereafter.

Figs 4:12 and 4:13 illustrate the fruiting times of the Nkupe Shelter and Mgede Shelter tree fruits and berries. These resources were mostly available between December and June, the *P. falcatus* fruiting season (Moll 1981). Few types fruit between July and November and those that do, occur primarily at Mgede Shelter and in the upper Nkupe Shelter levels.

Corm bases and fragments thereof were recovered from the Nkupe Shelter 5760 -2480 BP deposits and Mgede Shelter 4390 BP deposits. A clear trend emerges from the Nkupe Shelter (Fig. 4:14) corm densities; though a decrease in density occurs between 4950 and ca 4250 BP, the 5760 to ca 4250 BP densities generally reflect an insubstantial increase, but thereafter a significant increase in density occurs. This suggests, as with the seeds, an increasing deposition rate and, in turn, increasing geophyte exploitation. The increased corm residue at Nkupe Shelter and the appearance of corm remains in the Mgede Shelter

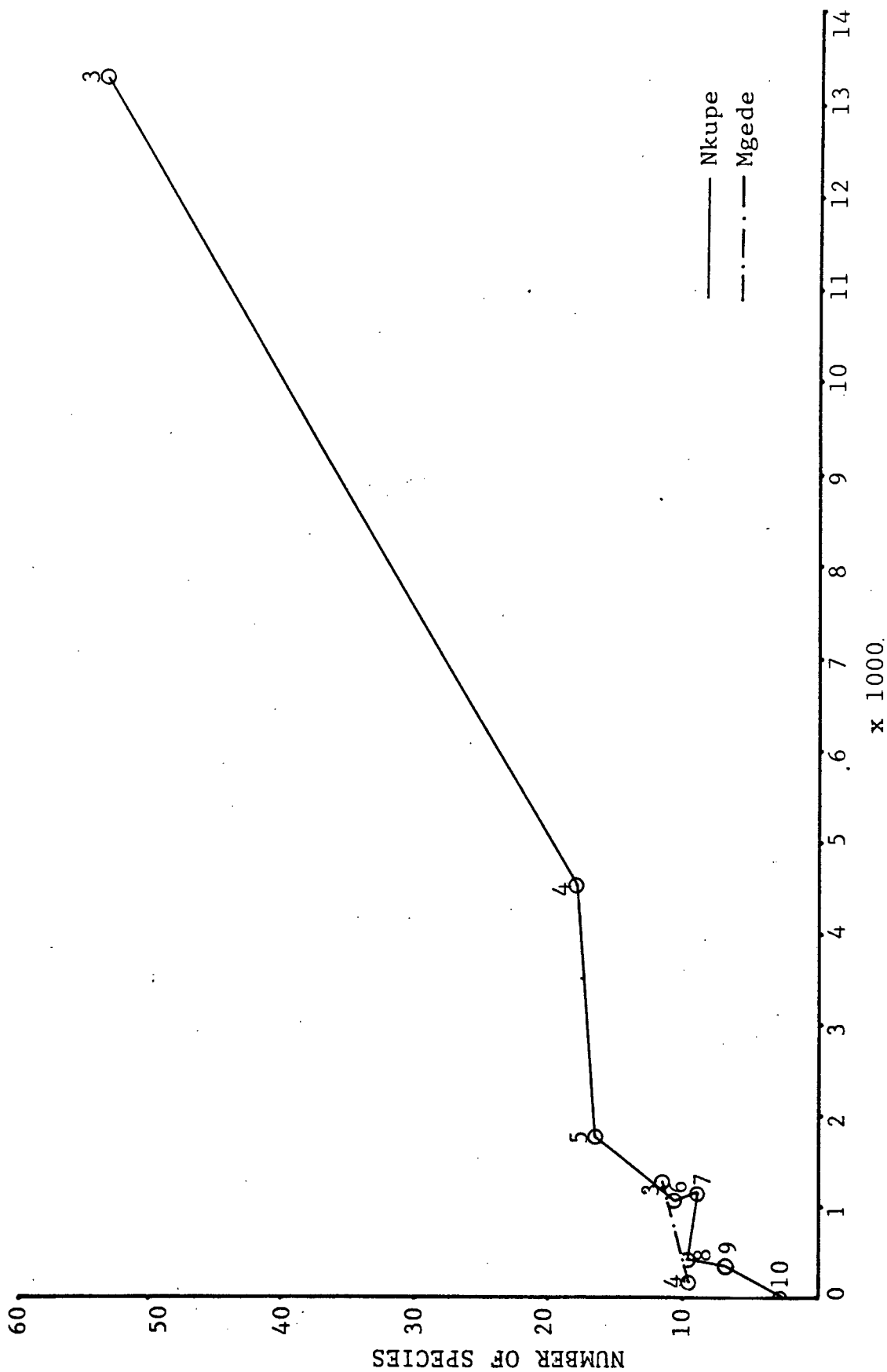


Fig. 4:10. Relationship between the number of species of seeds identified and the total number of seeds recovered, showing an increase diversity with quantity. For dates see Figs 4:8 & 4:9.

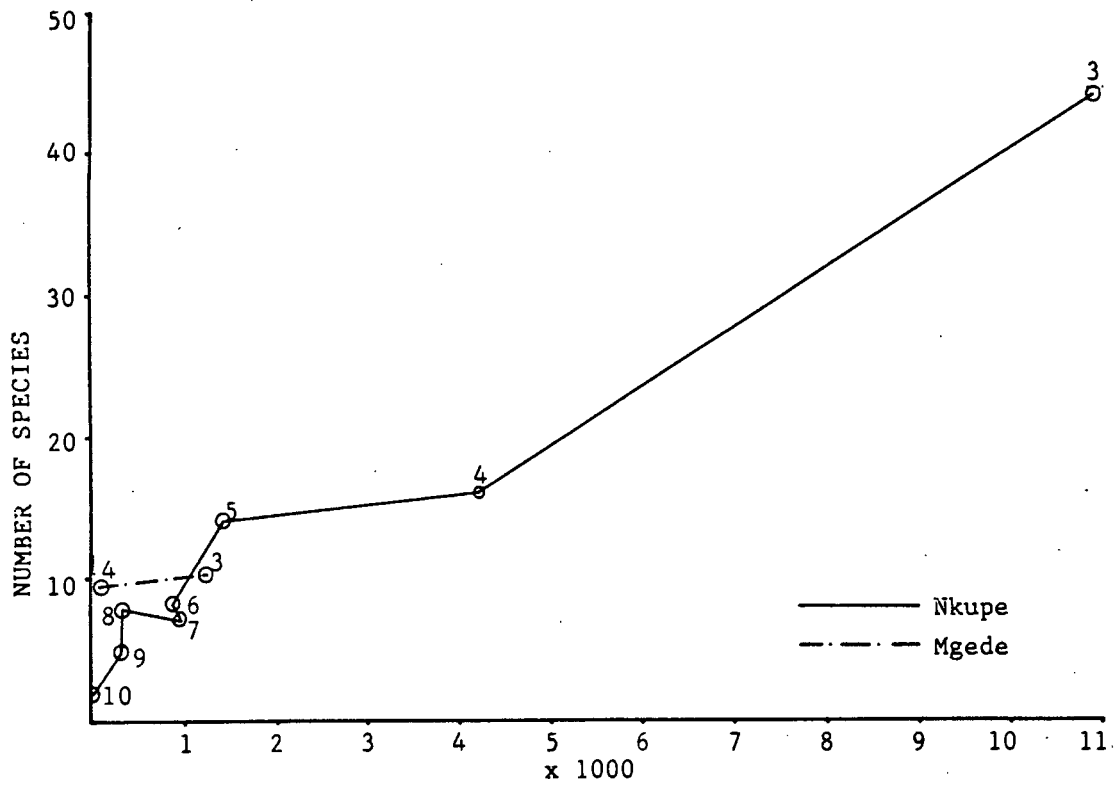


Fig. 4:11. Seed species known to have been used by humans: relationship between quantity and species diversity, showing an increase diversity with quantity. For dates see Figs 4:8 & 4:9.

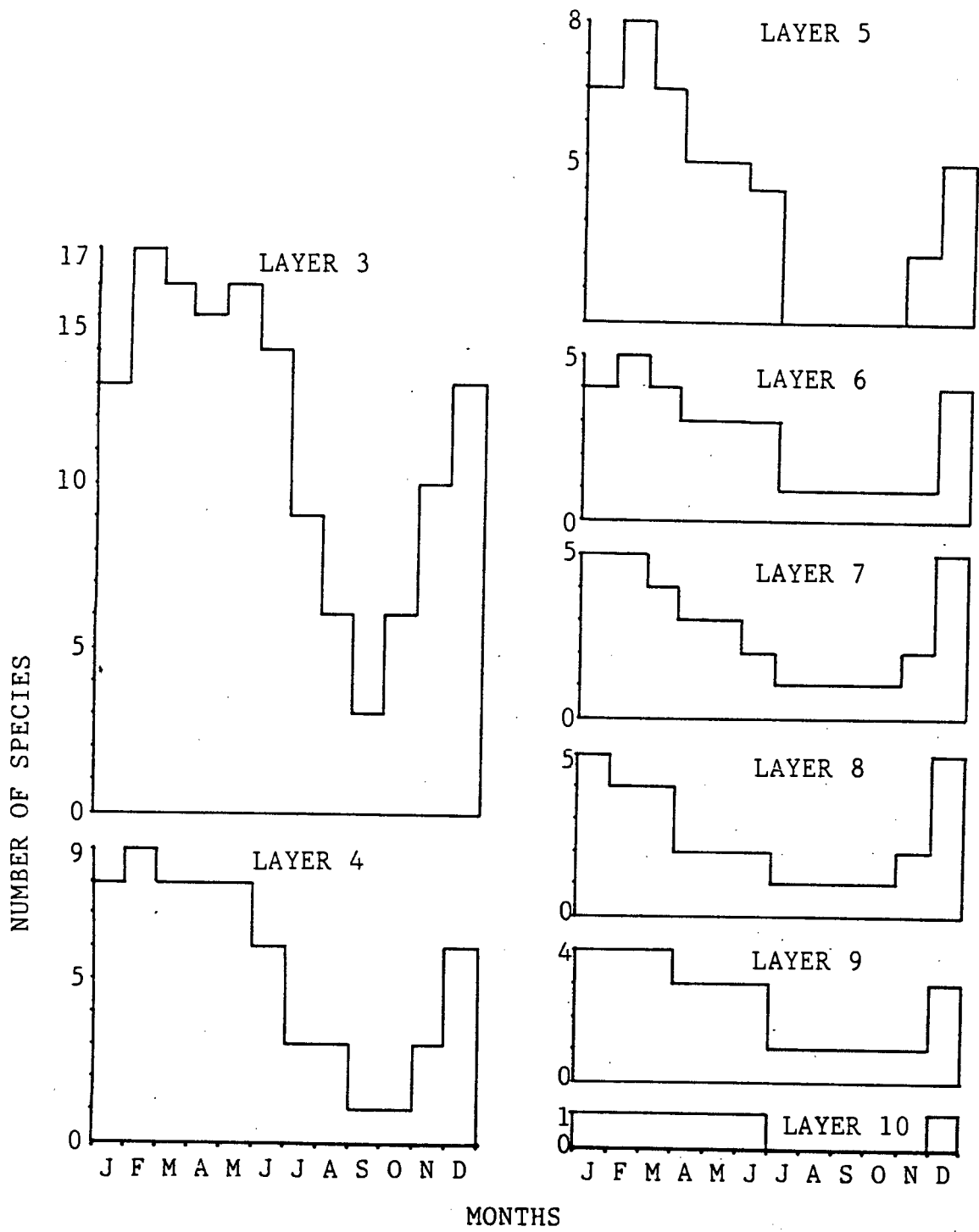


Fig. 4:12. Nkupe Shelter: seasonal availability of tree fruits and berries in Layers 3 - 10. Fruiting information Moll (1981).

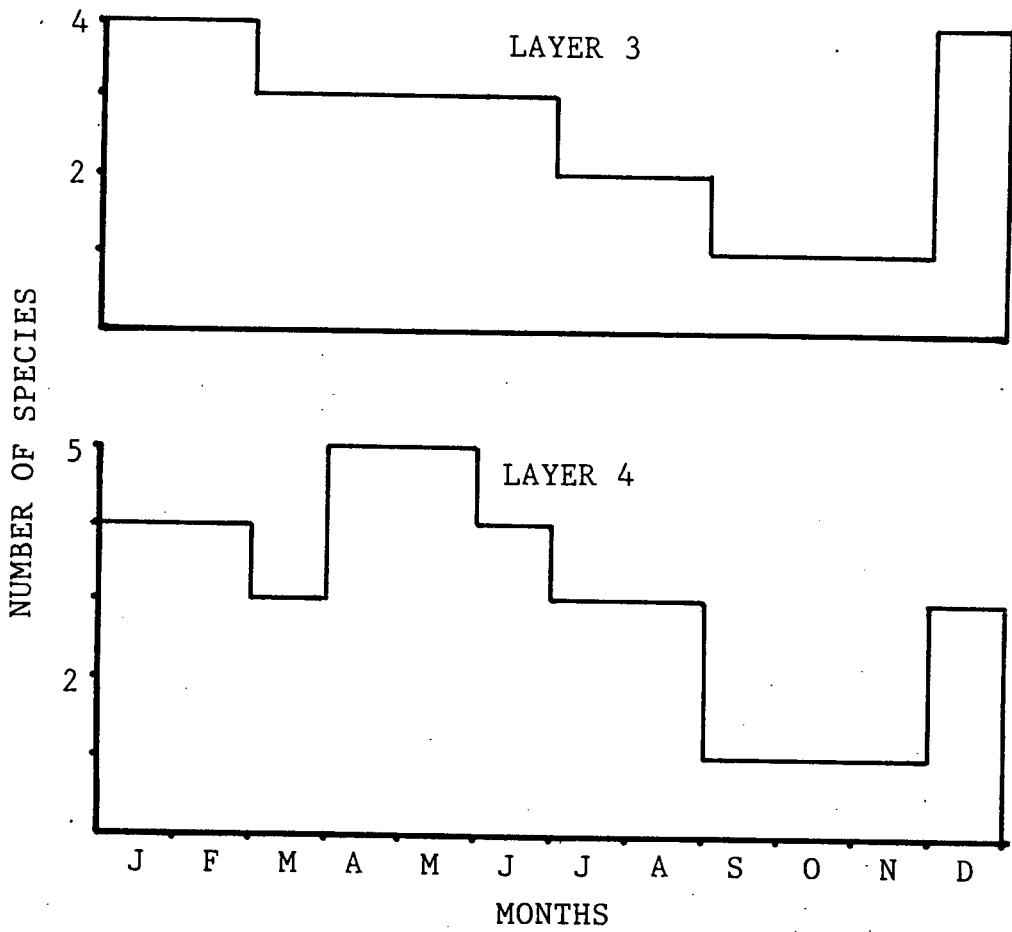


Fig. 4:13. Mgede Shelter: seasonal availability of tree fruits and berries in Layers 3 & 4. Fruiting information Moll (1981).

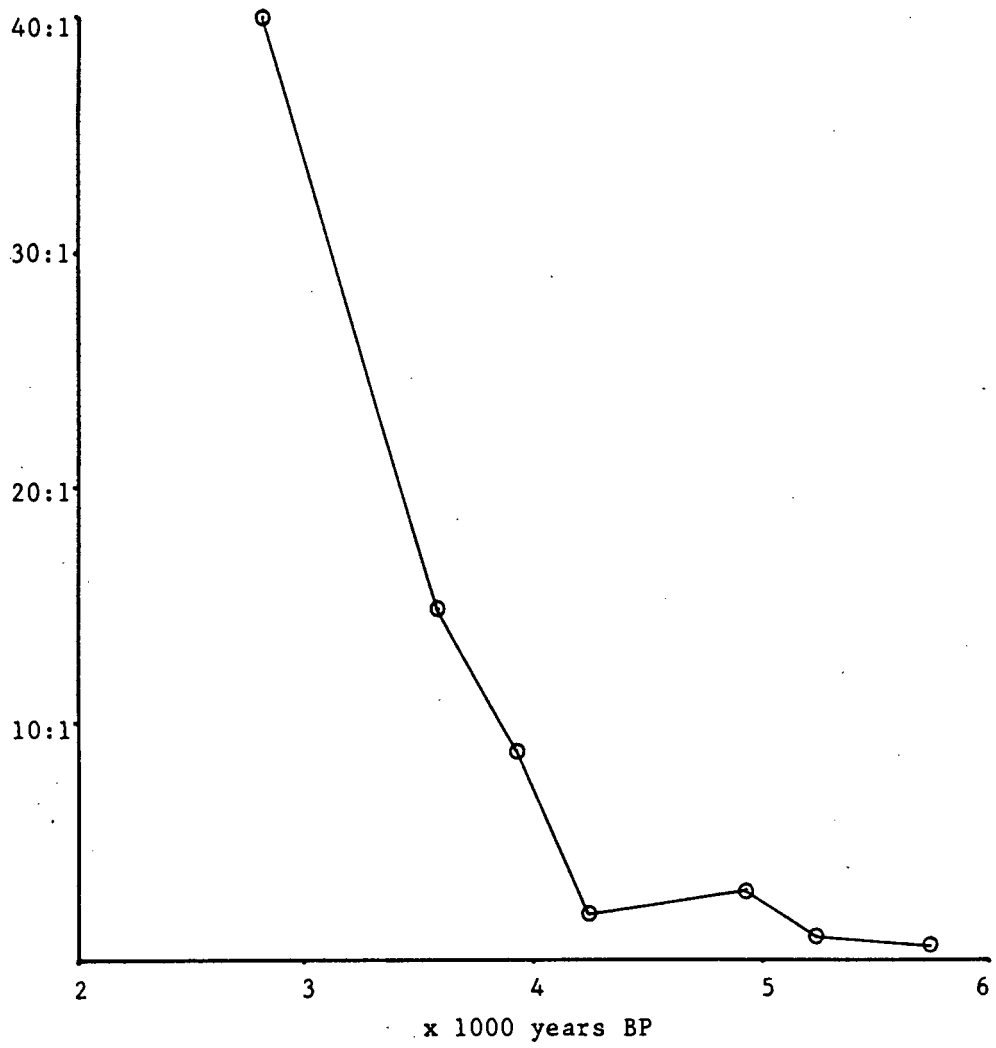


Fig. 4:14. Corm densities: mass per volume of deposit.

4390 BP deposits are not considered to be artefacts of improved preservation. Furthermore, it is unlikely that the corm remains were deposited by non-humans. No evidence exists to suggest that baboons, the most likely non-human agent to introduce corms into a rock shelter, occupied these sites intensively.

As the geophyte remains are not yet identified, we cannot comment precisely on their geographic distribution nor their seasonal availability. What, then, can the analysis of these characteristics of some of the more common geophytes tell us? Geophyte corms are palatable when the plants are in flower. Information on a range of Iridaceae species, including Moraea, Gladiolus, Watsonia and Dierama, is presented (Table 4:3). Two patterns emerge from these data; firstly, that these plants are primarily located in grassland areas above 1067 m (3500 ft) and; secondly, that they flower mainly from September to March, with some flowering as early as July/August. Among the early flowering geophytes are Moraea graminicola, M. galpinii and M. spatula (Goldblatt 1973) and Watsonia densiflora (Jeppe 1975), the latter being the most common Watsonia in Natal (Goldblatt pers. comm.).

Fruits, berries and corms would all have been abundant between December and March. Of the remaining months; April to June are plentiful in fruits and berries, September to November are rich in corms, and July and August are the leanest months, but with some fruits, berries and corms available.

We also need to consider the edible underground plant foods in the form of stems, rhizomes, roots and tubers, which

Species	Altitude/zone	Flowering time
<u>Dierama robustum</u>	Drakensberg above 5500ft (1680m)	mainly Dec-Jan
<u>D. argyreum</u>	ca2000-6500ft (610-1980m)	mainly Oct-Nov
<u>D. latifolium</u>	ca2000-7000ft (610-2135m)	mainly Oct-Jan
<u>D. sp.</u>	ca 0-1500ft (0- 460m)	mainly Sept-Oct
<u>D. tysonii</u>	ca5000-8000ft (1525-2440m)	mainly Nov-Jan
<u>D. galpinii</u>	ca3500-5500ft (1070-1680m)	mainly Sept-Nov
<u>D. medium</u>	ca4500-7000ft (1370-2135m)	mainly Oct-Nov
<u>D. pauciflorum</u>	ca5000-7500ft (1525-2290m)	mainly Nov-Dec
<u>D. trichorhizium</u>	ca4000-8000ft (1220-2440m)	mainly Oct-Dec
<u>Gladiolus cruentus</u>	7500-10 800ft (2300-3300m)	Dec-Jan
<u>G. saundersii</u>	5580-9500ft (1700-2900m)	Jan-Mar
<u>G. oppositiflorus</u>	grassland up to 8200ft (2500m)	Nov-Dec
<u>G. elliotii</u>	N.Natal 3280.5250ft (1000-1600m)	Nov-May, mainly Jan
<u>G. sericeo-villosus</u>	330-6900ft (100-2100m)	Dec-June, mainly Jan-Feb
<u>G. ochroleucus</u>	sea - 6560ft (0-2000m)	Feb-Apr
<u>G. ecklonii</u>	grassland, near sea-7750ft(2300m)	late summer
<u>G. natalensis</u>	widespread	late Sept-Apr/May
<u>G. papilio</u>	?	Dec-Mar
<u>G. permeabilis</u>	southern Natal	Sept-Nov
<u>G. edulis</u>	near sea-9840ft (3000m)	Summer and autumn
<u>Moreae natalensis</u>	Coast-mid-altitudes6500ft(1980m)	Summer
<u>M. elliotii</u>	throughout Natal	Sept-Mar
<u>M. inclinatana</u>	Drakensberg slopes	late spring-early summer
<u>M. stricta</u>	grasslands ca3280-8200ft(cal1000-2500m)	July-Nov
<u>M. alpina</u>	Drakensberg, summit plateau	Dec
<u>M. pubiflora</u>	grasslands ca3280-8200ft(cal1000-2500m)	Summer
<u>M. dracomontana</u>	Drakensberg, high altitudes	Dec-Jan
<u>M. modesta</u>	Drakensberg	Spring-early summer
<u>M. trifia</u>	grasslands	Nov-Mar
<u>M. marionae</u>	grasslands	Aug-Oct
<u>M. moggii</u>	N. Natal, grasslands	Dec-May
<u>M. muddii</u>	mountainous region	Oct-Dec
<u>M. unibracteata</u>	Natal Midlands, lower Drakensberg	Oct-Nov
<u>M. carnea</u>	Drakensberg, above 6560ft (2000m)	early summer
<u>M. ardesiaca</u>	Drakensberg, 6000-7200ft (1800-2200m)	Nov-Dec
<u>M. graminicola</u>	central Natal grasslands	Aug-Nov
<u>M. galpinii</u>	E. Transvaal-E. Cape	Aug-mid-November
<u>M. hiermalis</u>	central Natal grasslands	July-Aug
<u>M. spathulata</u>	Natal	July-Nov
<u>M. alticola</u>	upper Drakensberg	Summer
<u>Watsonia densiflora</u>	common in mid and lowveld Natal	July-Aug

Table 4:3. Distribution and flowering time of some Natal geophytes. Information after Goldblatt (1973, pers. comm.), Hilliard (pers. comm.), Jeppe (1975) and Lewis et al (1972).

would have been available throughout the year. Because of their overall soft and fleshy nature, these plant foods would probably have been completely consumed. Had parts of them been discarded though, they would almost certainly have disintegrated fairly rapidly, leaving no archaeological trace.

In investigating the exploitation potential of these plant foods, I first ascertained which of the edible types occur in Natal (Cable 1984; Fox & Norwood Young 1982) and then their geographical distribution (Ross 1972) - see Table 4:4). Types listed by Fox & Norwood Young (1982) as favoured foods are indicated in Table 4:4. Ross's (1972) distribution zones together with the site locations are illustrated (Fig. 4:15). Some 67 different types of edible stems, roots, rhizomes and tubers have been identified from Natal, but this must be regarded as a minimum number. Of these, 47 occur in the coastal area, 60 in the midlands, 36 in the uplands and 38 in Northern Natal. Though these plant foods are edible all year round, it is possible that as with the Hadza (Vincent 1985), the Thukela Basin hunter-gatherers might only have exploited them at particular times of the year, such as July and August when other plant foods were in short supply.

In summary, the Thukela Basin hunter-gatherers had available to them a wide variety of plant foods. Of these, the geophytes, berries and fruits, whose remains have been recovered, are seasonally restricted, but rhizomes, tubers, stems and roots, which we assume were exploited, are available all year round. Knowledge of the abundance and seasonality, or lack thereof, of these resources is essential when trying to piece together

	Coast	Midlands	Uplands	N. Natal	widespread
<u>Aponogeton junceus</u>					x
<u>Argyrobolium marginatum</u>	x	x	x		
<u>A. tuberosum</u>					x
<u>Asclepias eminens</u>		x		x	
<u>A. macropus</u>		x		x	
<u>Asparagus africanus</u>					x
<u>A. laricinus</u>	x	x			
<u>A. saueolens</u>		x			
<u>Boerhavia diffusa</u>	x	x			
* <u>Boscia albitrunca</u>		x			
<u>Brachystelma foetidum</u>				x	
<u>Coccina adoensis</u>		x			
<u>C. palmata</u>					x
<u>C. rehmannii</u>	x	x			
<u>Crassula vaginata</u>	x	x	x	x	
<u>Curculigo plicatum</u>	x	x	x		
* <u>Cussonia paniculata</u>		*x	x	x	
* <u>C. spicata</u>					x
<u>Cyphia elata</u>					x
<u>C. triphylla</u>			x		
<u>Dipcadi marlothii</u>					x
<u>D. viride</u>					x
<u>Dioscorea dregeana</u>	x	x			
* <u>Disa spp.</u>	x	x	x	x	
<u>Dolichos angustifolus</u>		x	x	x	
* <u>Duvalia polita</u>		x			
* <u>Encephalartos spp.</u>	x	x	x	x	
<u>Eriosema cordatum</u>	x	x		x	
* <u>Eulophia spp.</u>	x	x	x	x	
<u>E. clavicornis</u>					x
<u>Galtonia viridiflora</u>			x		
* <u>Gunnera perpensa</u>					x
<u>Hypoxis argentea</u>	x	x			
<u>Imperata cylindrica</u>	x	x		x	
* <u>Ipomoea albivenia</u>	x	x			
* <u>I. crassipes</u>	x	x		x	
* <u>I. pellita</u>	x	x		x	
* <u>I. purpurea</u>	x	x			
* <u>I. simplex</u>	x	x			
<u>Kouhatia amatymblica</u>					x
* <u>Maerua cafra</u>	x	x		x	
* <u>M. racemulosa</u>	x	x			
<u>Ovalis corniculata</u>					x
<u>O. semiloba</u>					x
<u>O. smithiana</u>		x	x		
<u>Phragmites australis</u>	x	x	x		
<u>Plantago major</u>	x	x		x	
* <u>Plectranthus laxiflorus</u>	x	x		x	
<u>Raphionacme elata</u>	x	x			
* <u>Rhoicissus tridentata</u>					x
<u>Rhyncosia totta</u>	x	x			
* <u>Sarcostemma viminalis</u>	x	x			
* <u>Satyrion spp.</u>	x	x	x	x	
<u>Schizoglossum araneiferum</u>				x	
<u>S. atropurpureum</u>			x	x	
<u>S. biflorum</u>		x		x	
<u>S. cordifolium</u>	x	x	x		
<u>S. interruptum</u>		x			
<u>S. lamellatum</u>		x			
<u>S. linifolium</u>			x		
<u>S. pullechellum</u>		x	x		
* <u>Setaria sphacelata</u>					x
* <u>Sisymbrium thellungi</u>	x	x		x	
<u>Typha latifolia</u>					x
<u>Tulbachia spp.</u>					x
<u>Wahlengeria denudata</u>		x	x		
<u>Zantedeschia albomaculata</u>	x	x	x		
Total	30	43	19	21	17

Table 4:4 Availability of edible stems, rhizomes, roots and tubers in Natal. Distribution information after Ross (1972), edibility information after Cable (1984) and Ross & Norwood Young (1982). *indicates types listed by Fox & Norwood Young (1982) as favoured foods.

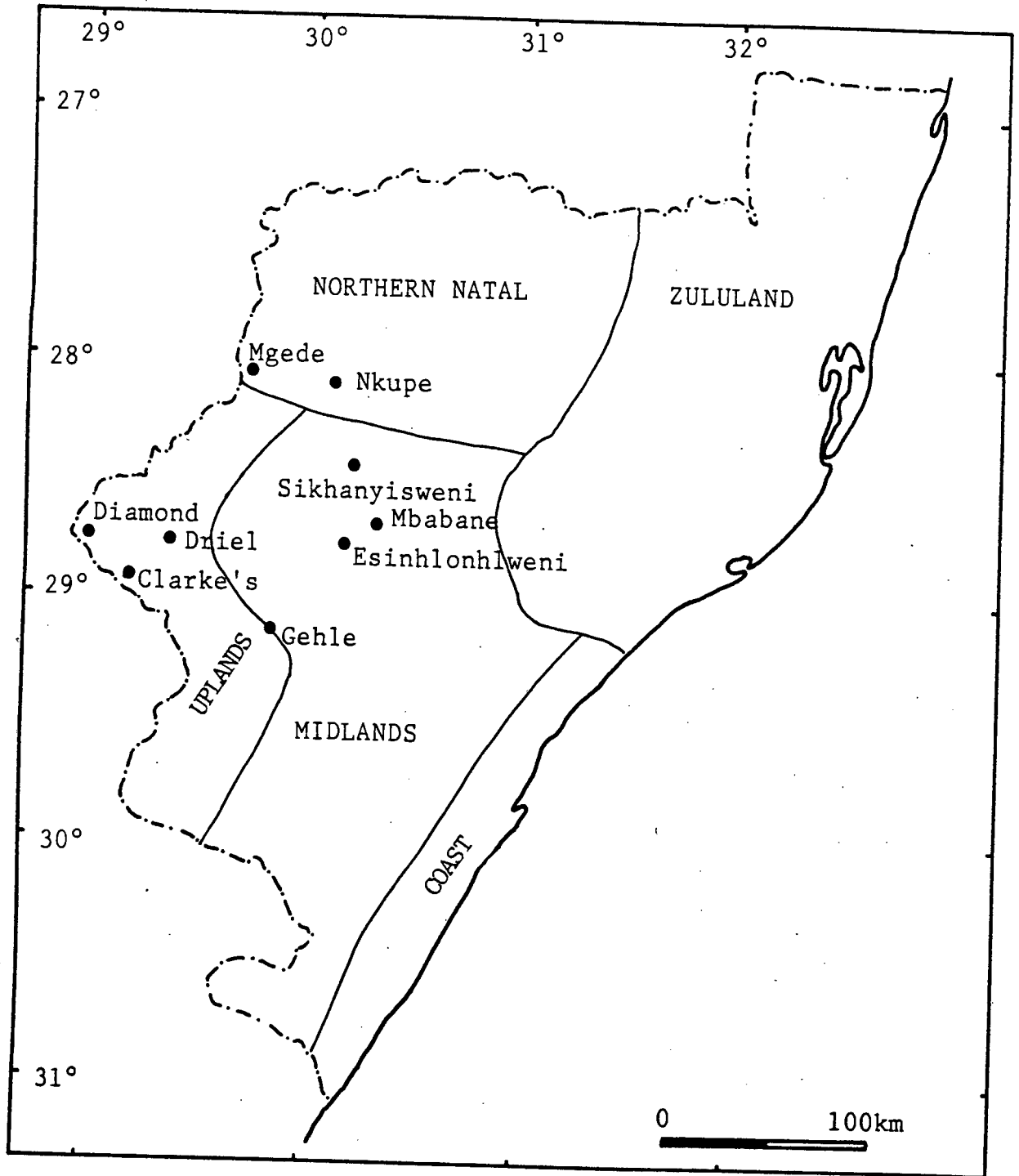


Fig. 4:15. Delimitation of the major regions of Natal after Ross (1972).

hunter-gatherer history.

It would appear from the plant remains, that the Nkupe Shelter and Mgede Shelter hunter-gatherers chose to exploit large quantities of fruits and berries in preference to underground plant foods. The inclusion of large quantities of fruits and berries into the diet in preference to underground plant foods, assumes added interest when viewed in the light of the hierarchy of plant foods used by the !Kung hunter-gatherers (Lee 1979). Lee identified six classes of foods (primary, major, minor, supplementary, rare, and problematic) using six criteria (abundance, duration or eating season, ease of collecting, tastiness, lack of side effects, and nutritional value) as well as his observations on the frequency of use and amounts used. A comparison of the fruits and berries, on the one hand, and the underground plant foods, on the other (Lee 1979:171), showed that 3 and 28% of the former was primary and major food respectively, whilst none of the latter was primary food and only 7% were major foods. Almost equal proportions of fruits and berries and underground plant foods were minor, supplementary and rare foods, but only 7% of the fruits and berries were problematic compared with the 27% of the underground plant foods. Assuming similar plant food preferences for the Thukela Basin hunter-gatherers would explain why fruits and berries were exploited in large quantities in preference to underground plant foods.

Next, we consider the artefactual evidence for plant food exploitation. To begin with though, the functions of the most typical formal tools (i.e. scrapers, adzes and backed pieces) are

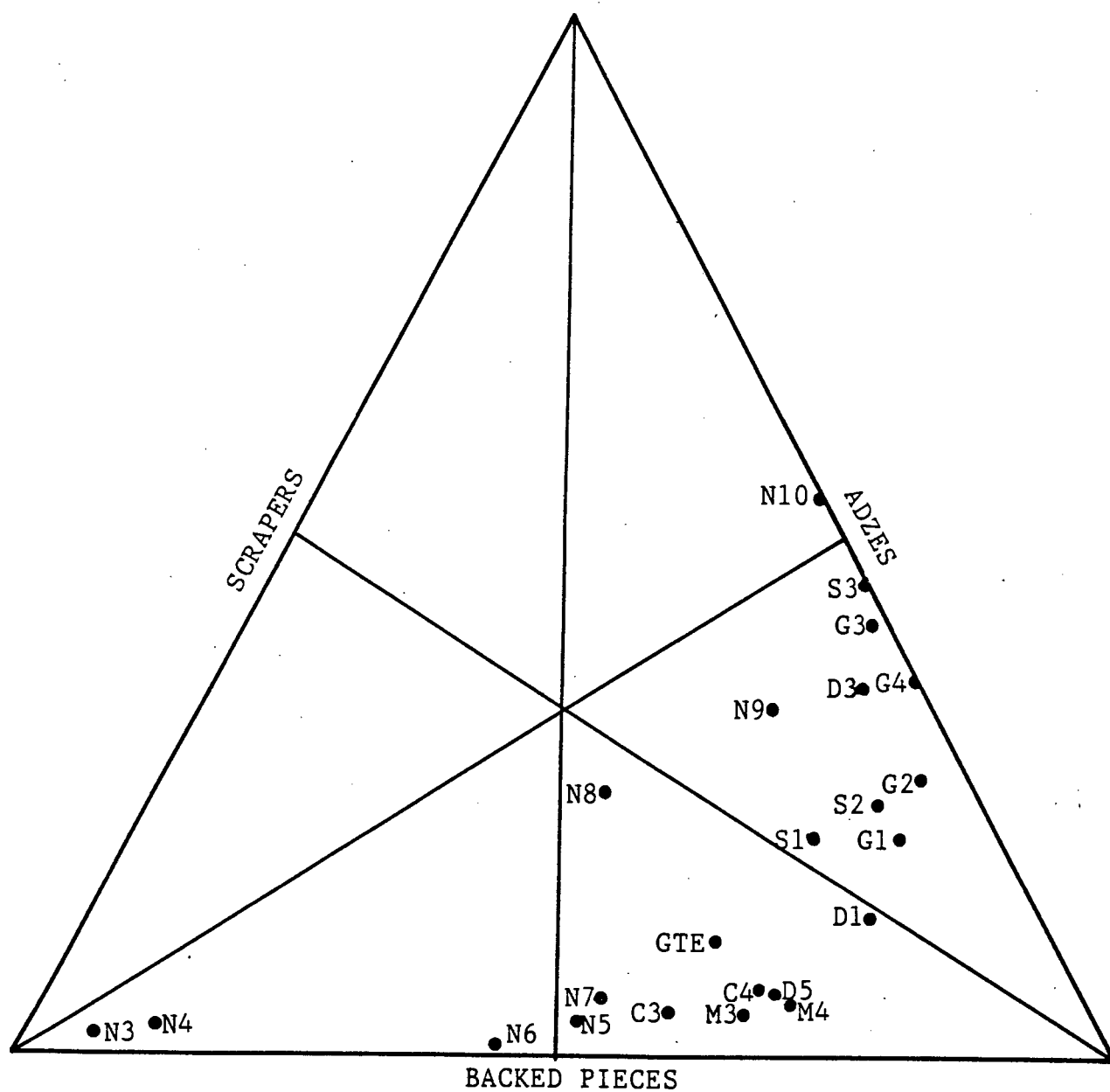
presented. These tools were probably task-specific: scrapers for removing the fat from animal skins before pegging them out to dry; adzes for shaving wood and, to a lesser extent, bone; and backed pieces, of which there are different types, were probably used in the hunting of animals and subsequent processing of the meat (Mazel 1978; Mazel & Parkington 1981).

The functional relationship between adzes and the collection of underground plant foods also requires elaboration. It has been argued that, if adzes were primarily woodworking tools, then a close relationship should exist between them and underground plant foods, particularly in areas of hard ground where wooden digging-sticks made with adzes (and sometimes weighted with bored stones) would have been an essential aid in the excavation of underground plant foods (Mazel & Parkington 1981; Mazel 1984b). In areas of hard ground, digging-sticks would require considerably more maintenance than in soft soil areas. For example, amongst the Hadza where the soil is extremely hard and compact, or full of rocks and cobbles, digging-sticks wear down at an average rate of 70 mm per digging episode (Vincent 1985). Similar unfavourable soil conditions characterise much of the research area (Van Der Eyck, Macvicar & De Villiers 1969). No information exists on the Thukela Basin hunter-gatherer digging-stick lengths, but Hadza digging-sticks vary between 1 and 1,6 m with a mean of 1,36 m (Vincent 1985) and !Kung digging-sticks vary between 1 and 1,4 m (Lee 1979). Hadza digging-sticks are discarded when they are about 0,7 m long (Vincent 1985), the trimmed length thus varying between 0,23 and 0,83 m. Applying the same discard length to !Kung digging-sticks

gives us a life-use of between 0,23 and 0,63 m. Digging-sticks worn down at a rate of 70 mm per episode would thus last between three and 12 days. Some sticks may, however, last for only two to three days if the wood is dry and the ground very rocky (Vincent 1985). The life expectancy of digging-sticks in hard soil contrasts greatly with those in soft soil, where they last up to six months (Lee 1979).

It is thus submitted that adze proportions are linked to the intensity of digging-stick use, which, in turn, reflect the exploitation of underground plant foods, and that adzes would be used in greater quantities in areas of harder and stonier soils. Varying adze frequencies in areas with similar soil conditions, therefore, probably reflect differing hunter-gatherer emphasis on underground plant foods. The formal tool usage patterns are approached with these conclusions in mind.

Fig. 4:16 is a tripolar graph grouping the assemblages using backed pieces, scrapers and adzes as the variables. Combined, these tools vary between 82 and 100% of all the formal tools, excluding Sikhanyisweni Shelter ca 5500 BP where they are 77%. What emerges clearly from this graph, though in differing proportions and rates at the various sites, is that adze proportions increase through time and this is generally accompanied by decreasing backed piece proportions. Scraper proportions, on the other hand, remain more or less constant throughout, save the Nkupe Shelter ca 3500 and 3190 - 2480 BP assemblages where they are uncharacteristically low. Of all the sites, Nkupe Shelter experienced these trends most profoundly; for example, adzes, scrapers and backed pieces comprise 0%, 42%



N=Nkupe; S=Sikhanyisweni; M=Mgede; G=Gehle; C=Clarke's; D=Diamond 1; GTE=Gehle Test Excavation.

Fig.4:16. Tripolar graph using scrapers, adzes and backed pieces as variables.

and 48% of the 6650 BP formal tools respectively, 39%, 46% and 5% of the 4590 BP formal tools respectively and 81%, 8% and 2% of the 3190 - 2480 BP formal tools respectively.

If, as submitted, adzes relate to the exploitation of underground plant foods, then the increasing adze proportions at all the Thukela Basin 7000 - 2000 BP sites (Fig. 4:17) strongly suggest increasing hunter-gatherer emphasis on these foods. This is independently supported by the geophyte evidence at Nkupe Shelter and to a lesser extent Mgede Shelter, the only sites to produce these remains.

Further evidence of the intensified exploitation of underground plant foods by hunter-gatherers, comes from the discovery of an increasing number of grindstones, which were probably employed in the processing of these foods. While the 7000 - 4000 BP and 4000 - 2000 BP deposits excavated during this project are more or less similar in volume, a maximum number of six grindstones were recovered from the sites dating back to the earlier period and at least 20 dating back to the later period.

Evidence from Clarke's Shelter suggests that the hunter-gatherers occupying it had pottery around 2150 years ago (Mazel 1984b). As this is the only Thukela Basin site dated between 2400 and 1800 years ago, no independent confirmation of this relatively early date exists. If the Clarke's Shelter date is correct, and hunter-gatherers had pottery then, then we need to consider the subsistence implications. For the first time they had containers able to sustain great heat in which they could boil food. I am unable to examine in detail here which additional plant foods would have been potentially available, but

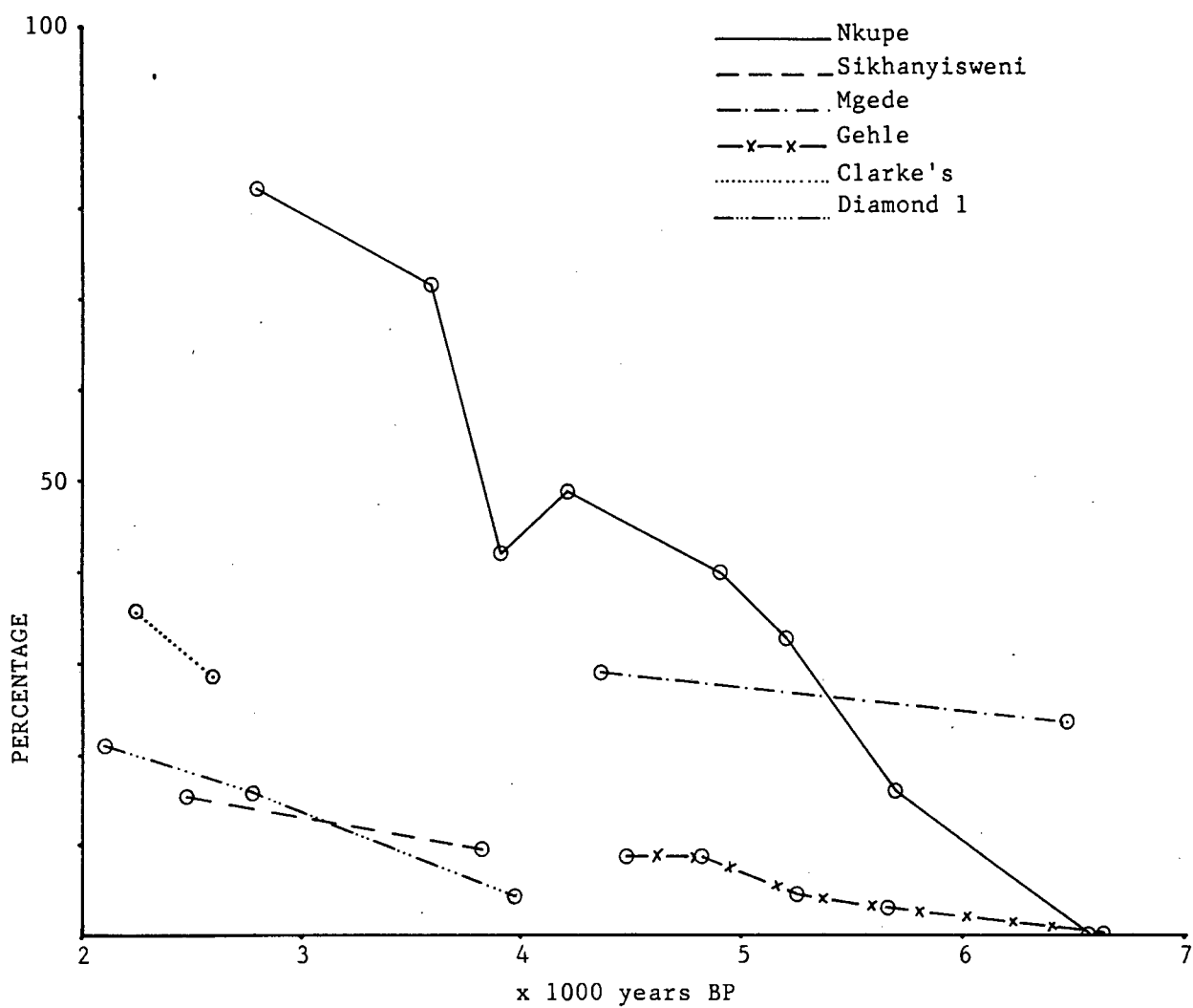


Fig. 4:17. Adzes as proportions of the total formal tools.

it is likely to include a considerable number. Thus it is of significance that while only 12% of the Nkupe Shelter plants identified can be used as spinach, 26% and 21% respectively of the post-2000 BP sites of Mbabane Shelter and eSinhlonhlweni Shelter plants can be so used (Mazel 1986b).

DISCUSSION

The Thukela Basin hunter-gatherer society experienced changes in habitation density and subsistence strategies between 7000 and 2000 BP, as is evidenced by changes in the number of sites they occupied, the types of food they ate and the quantities thereof, and related technological trends. What are the implications ?

The significance of the increased exploitation of fish and micromammal resources will be discussed first. Hayden (1981) has drawn attention to the importance of the reproductive strategies and growth patterns of animal populations in explaining the archaeological record. Ecologists draw a distinction between r-selected species and K-selected species. The K-selected species are mostly long maturing, large mammals which reproduce repeatedly, but tend to invest in one or few offspring at a time. The long maturing and limited offspring means that these species are vulnerable to over exploitation or even local extinction, and the re-establishing of optimum population levels takes considerable time. Their potential biological productivity, defined as an increase in biomass over

time is, therefore, low. In contrast, r-selected species are generally small, have short lives, some of which reproduce only once but then often in great numbers, are not prone to extinction through over-exploitation, can be phenomenally productive biologically, and quickly re-establish themselves after major environmental fluctuations. The r-Selected species include micromammals, fish, insects, grasses etc. Increased hunter-gatherer focus on r-selected species must thus not be viewed simply as the broadening of the range of food taken (i.e. diet breadth) but instead, the exploitation of highly productive food types which are not prone to extinction through over-exploitation. Moreover, as Gamble has commented, the exploitation of r-selected species on any scale along with a range of other trends such as investing material culture with stylistic rules, "involves intensification at a regional scale irrespective of the size of that region" (Gamble 1986:378). These inferences have significant implications for hunter-gatherer settlement patterns.

Hayden (1981) views the changing nature of the resource base as the dominant cause of cultural change. Though I disagree with this proposition, many of his conclusions on the relationship between hunter-gatherer exploitation of r-selected species and settlement are instructive, and of great relevance to explaining Thukela Basin hunter-gatherer history. Of particular importance is his contention that increased exploitation of r-selected species is linked to population growth and increased sedentism.

"Because sedentary groups tend to deplete large-bodied sources of food, especially game, within a few hours

walking distance, there would have been even greater pressure to use smaller, possibly less desirable but more numerous and more productive food sources, especially for production, e.g. terrestrial and aquatic molluscs, rodents, fish and lizards" (Hayden 1981:1257).

Furthermore, these resources are generally more reliable, and by relying on a greater diversity of resources hunter-gatherers are less at the mercy of the seasonality of a smaller range of resources. Hayden's diagram showing the proposed general relationship between the various variables relevant to his model of Stone Age hunter-gatherer societies is reproduced (Fig. 4:18). While the specific situations differ, the general patterns he postulates are pertinent - in particular, that the increase in variables such as resources reliability, food abundance and the diversity of staple resource, corresponds with a decrease in nomadism and band range. As mentioned earlier, H.J. Deacon (1976) has posited a similar scenario for the Holocene hunter-gatherer occupation of the eastern Cape.

Turning to the Holocene Thukela Basin hunter-gatherer settlement patterns and subsistence strategies, the available evidence supports a model of hunter-gatherer intensification. Beyond the increased hunter-gatherers' exploitation of fish and micromammals, they occupied an increasing number of sites (which is not believed to be linked to increased residential mobility) and also increased their exploitation of underground plant foods, fruits, berries and small macrofauna such as dassies and hares. These changes also reflect another important adjustment in their subsistence strategies, that they were concentrating increasingly on smaller food parcels, indicated by their increased exploitation of plant foods, fish, hares, dassies and micromammals. The

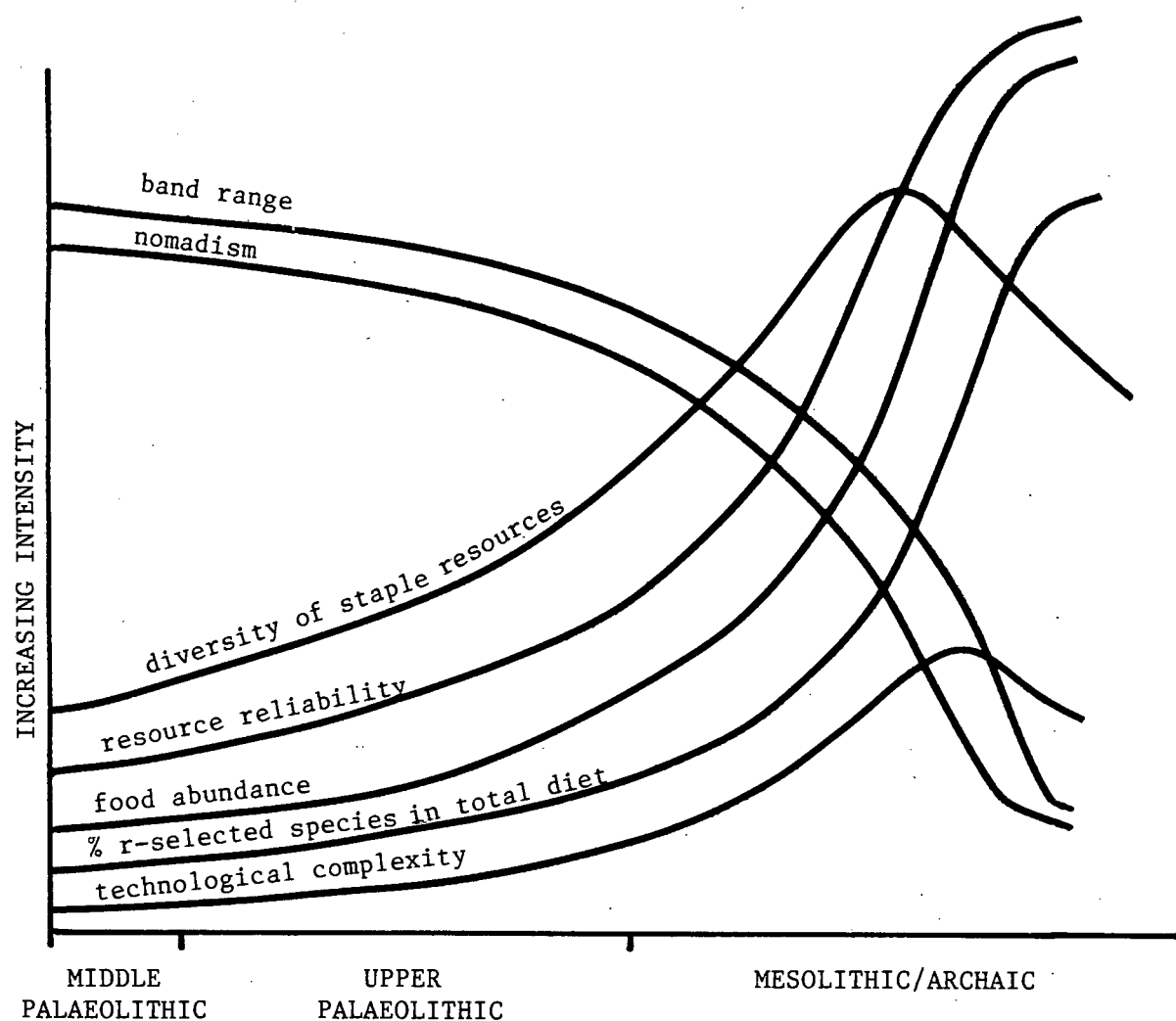


Fig. 4:18 Hayden's (1981) illustration of the proposed relationship between some of the variables relevant to his resource - stress model. Population density should follow the same general curve as % r-selected species in the total diet .

settlement implications of this increased production, which, it must be remembered, included increasing emphasis on resources which are biologically very productive and generally more reliable and predictable, have already been spelt out; the essential point being that people would have been extracting their subsistence from increasingly smaller areas and that this would be associated with decreasing band range and nomadism.

Intensification appears not to have occurred uniformly across the research area. As submitted earlier, discrepancies in food production exist between communities to the north and south of the Thukela River, with those in the north, and especially in the Nkupe Shelter and Mgede Shelter area, reaching a higher level of intensification than those in the south. These discrepancies will be explored further by looking at the sites individually. Investigation of the inter-related phenomenon of the seasonal occupation of sites will also form part of this exercise. This is of importance, as it will provide additional information on the relative level of intensity with which the sites were occupied.

Before continuing however, the seasonality of the resources exploited will be outlined. The Nkupe Shelter and Mgede Shelter fruits and berries were primarily available between December and June. This probably reflects their seasonal availability in the entire research area, as the same timing characterises the fruits and berries recovered from central Thukela Basin sites (Mazel 1986b). Iridaceae geophytes are primarily available between September and March, with some as early as July/August. Numerous other underground plant foods in the form of roots, stems, tubers and rhizomes would, however, have been exploitable all year round.

Besides the migratory medium/large bovids, all the macrofauna are non-migratory and thus available all year round. The migratory bovids would have spent spring and summer in the high-lying regions and the rest of the year in the lower lying regions. Micromammals would also have been available all year round. Though their breeding rates drop in winter, reduced grass cover would have forced them to invest more time in seeking food, making them more susceptible to exploitation then. Fish, on the other hand, spend spring and summer in the high lying areas above 1525 m (5000 ft) and the rest of the year below that. The Drakensberg sites and Nkupe Shelter, Gehle Shelter and Mgede Shelter are all above this height.

Considering these seasonal data together, the impression gained is that the research area contained sufficient food to sustain all year round occupation. Cable (1984:179) reached a similar conclusion for the southern Drakensberg area; that the hunter-gatherers could have scheduled their occupation of this area for any time of the year, though he believes they lived there in summer.

Nkupe Shelter provides a good example of increasing food production coupled with the changing nature of hunter-gatherer occupation. It appears that its early occupants, from around 6650 to 4000 BP, emphasised large animals with an increasing, exploitation of plant foods, mainly fruits and berries. Within the macrofaunal assemblages though, the exploitation of dassies and hares, after dropping between 6650 and ca 5250 BP, increases considerably. Between around 4000 and 2480 BP, numerous changes occur. Underground plant food exploitation increases

substantially, especially between 3190 and 2480 BP. Fish, first taken around 4000 BP, are increasingly exploited. The most intense exploitation of micromammals and fruits and berries occurs around 3500 BP, but thereafter the intensity of fruit and berry exploitation is still considerably higher than anything experienced before 3500 BP, but the microfaunal exploitation drops to levels below that experienced around ca 4250 and 5760 BP.

The Nkupe Shelter subsistence adjustments may also reflect seasonality changes. The early occupation emphasis on fruits and berries, especially Podocarpus falcatus suggests, if anything, a primarily December to June occupation of this site. The growing reliance on fish, micromammals, underground plant foods and dassies and hares would, however, have increasingly freed the people of seasonal restrictions and also enabled them to occupy the site for longer periods of the year. Sometime after 4000 BP, and most probably between ca 3500 - 2480 BP when plant foods were mostly intensely exploited, Nkupe Shelter may have been occupied for extended periods, at all times of the year. This is not meant to imply that they occupied the site all year, every year, but rather that their occupation was not seasonally specific.

In summary, features which signal intensification, namely the adding of new resources to the diet and increasing exploitation of old ones, characterise the hunter-gatherer occupation of Nkupe Shelter. These adjustments were possibly linked to changes in settlement strategies, whereby this site was occupied for increasing periods during more and more of the year, and after 4000 BP possibly at any time of the year.

The hunter-gatherer occupation of Mgede Shelter appears to

have been developing identically to that of Nkupe Shelter until it was curtailed shortly before 4000 BP. This is reflected in the increasing exploitation of fruits and berries, especially Podocarpus falcatus, and the appearance of fish and geophytes remains in the 4390 BP deposits. There is also a comparable increase in adze proportions which, as submitted earlier, relates to the exploitation of underground plant foods. As with Nkupe Shelter, it is possible that between 6550 and 4390 BP, this site was primarily occupied between December and June.

The excavated Gehle Shelter deposits probably date between 7000 and 4500/4000 BP. Plant remains were scarce at this site, but, as with Mgede Shelter and Nkupe Shelter, the macrofaunal assemblages are dominated by small and small/medium bovids and there is an increasing emphasis on hares and dassies. The early Gehle Shelter and contemporary Nkupe Shelter lithic formal tool assemblages are similar, displaying high backed piece and low adze proportions and scrapers comprising about half the assemblages. While these similarities obviously cannot be taken as unequivocal evidence for identical subsistence strategies, they certainly do suggest a level of similarity as these formal tools were linked to subsistence activities. That the Gehle Shelter hunter-gatherers were increasing their underground plant food production is suggested by the increasing adze proportions at this site. The absence of botanical remains inhibits comment on the possible changing seasonal occupation of this site, but as with Mgede Shelter and Nkupe Shelter it could be that it was inhabited for longer periods of the year.

The conclusions reached for Gehle Shelter also apply to

Sikhanyisweni Shelter. The notable differences between these two sites, however, are the fish and freshwater mussel remains from Sikhanyisweni Shelter.

It has been suggested (Mazel 1984b) that the hunter-gatherer occupation of Clarke's Shelter can be regarded as a temporal continuation of the Diamond 1 occupation. Accordingly, it is of interest that the Diamond 1 bovid assemblages are dominated by gregarious, migratory species which would have occupied the Drakensberg in spring and summer, whilst the Clarke's Shelter comprise primarily solitary, non-migratory types. While we may never be sure what precipitated the switch from large to small animals, it could possibly reflect one of two scenarios or, perhaps even, a combination of them. We could argue, either that hunter-gatherer occupation of the Drakensberg did not coincide with that of the large bovids, or that they did coincide, but instead of following large herds of antelope around, the hunter-gatherers concentrated increasingly on the resources in the immediate vicinity of the sites. Both these possibilities, particularly the second one, would be linked to a process of intensification. Adze proportions increase at Diamond 1 (0-14-20%) and this trend continues at Clarke's Shelter (28-35%), suggesting greater exploitation of underground plant foods. The appearance of pottery at Clarke's Shelter shortly before 2000 BP would have enabled the exploitation of an increased number of plants, but confirmation of whether this transpired, will have to await the recovery of plant remains.

Comparing the subsistence strategies practised at the different sites, supports the argument that the scale of

intensification was not geographically uniform. On available evidence, it would seem that the Nkupe Shelter and Mgede Shelter communities experienced greater intensification than those elsewhere in the research area. Greater intensification at Sikhanyisweni Shelter than at the sites to the south of the Thukela River is suggested by the exploitation of fish and freshwater mussels.

This chapter has concentrated on habitation density and the subsistence strategies of the Thukela Basin 7000 - 2000 BP hunter-gatherers. It has been submitted that the Thukela Basin hunter-gatherer society experienced a process of intensification during this time. While I have concentrated on production, it is likely, as suggested at the beginning of the chapter, that this was accompanied by increasing productivity. In the introduction to this chapter it was submitted that increasing production is caused by structural changes in the social relations of production. The following chapter investigates the evidence for social restructuring.

CHAPTER 5

SOCIAL RESTRUCTURING 7000-2000 BP: THE EVIDENCE
FROM THE MATERIAL CULTURAL RECORD.

This, and the following chapter, concerns the social relations of production, defined in Chapter 3 as those relations people enter into to reproduce society as a social and economic unit. Unlike the forces of production, these relations cannot be constructed simply by using tangible phenomena, such as the number and types of animals and plants recovered, but they need to be drawn out. This applies to their reconstruction in the archaeological record as well as other research contexts. As discussed Chapter 3, elucidating these relations from the archaeological record is however, especially difficult, particularly the further back in time we go, as we rely almost entirely on material items that have survived the ravages of time. Nevertheless, as will be submitted in this and subsequent chapters, something can be said about the Thukela Basin Holocene hunter-gatherer social relations and social structuring by employing appropriate theoretical tools together with detailed material cultural analysis which is informed by ethnographic and other pertinent information.

Previously it was remarked that the process of intensification experienced by Thukela Basin hunter-gatherer society was precipitated by social restructuring. Here we

explore this social restructuring working from the material cultural record, and begin focusing attention on other pertinent aspects of the social relations of production. I am conscious of the conclusions reached in the previous chapter, as it is imperative that a close dialectical relationship exists between the social relations and forces of production. A remarkable degree of consistency characterises their relations in the present research context.

Before addressing the material cultural remains, we need to explore social hierarchical schemes and identify the level of organisation that will be the target of the following analyses. Furthermore, it is imperative that we investigate the way in which social entities and relationships can be identified in the archaeological record. Advice on these phenomena is forthcoming from archaeological theory and research (Clarke, D.L. 1968; Clark, G. 1975; Deacon, H.J. 1976; Gamble 1986; Wobst 1974, 1976), ethnoarchaeology (Hodder 1982, 1985; Wiessner 1982, 1983, 1985) and historical accounts (Deacon, J. 1986). Wiessner's research on the !Kung hxaro alliance networks will be considered in the following chapter.

D.L. Clarke (1968), G. Clark (1975) and Gamble (1986) propose social hierarchical schemes which they consider to have archaeological applicability. D.L. Clarke (1968) first established a hierarchical structure of the material cultural remains (site assemblage, subculture, culture, culture group and technocomplex) and then related these entities to social, linguistic and genetic dimensions. G. Clark (1975), on the other hand, while also working from the material cultural record,

identified a series of hierarchical territories, starting with peripatetic home bases, then to annual territories, social territories and finally techno-territories. Gamble (1986) has also produced a nested hierarchy of analytical scales, starting with the artefact as the smallest scale and the inter-regional as the largest scale. Some overlap exists between these schemes, as is evident from the figures and Table reproduced here (Figs 5:1, 5:2 & Table 5:1).

I do not intend to evaluate these schemes critically, but rather to extract pertinent insights from them to assist in establishing the general character of the Thukela Basin hunter-gatherer social entities and to explore their internal social dynamics. The character of these social entities will be developed theoretically during the course of the following discussion, but it is necessary to comment briefly on them so as to contextualise the following discussion. The Thukela Basin social entities which form the bases of the following analyses are viewed as biological and social self perpetuating units in which a number of bands are interlinked through social and economic ties. These conglomerations of bands occupy distinct geographical areas which, as mentioned earlier, will be referred to as social regions.

At a conceptual level these social regions approximate the social territories proposed by G. Clark (1975), though in terms of geographical and demographic dimensions, substantial differences emerge. For example, the social territories identified by Clark in Scandinavia vary between 70 000 and 120 000 sq km whereas the Thukela Basin itself only occupies 27 000

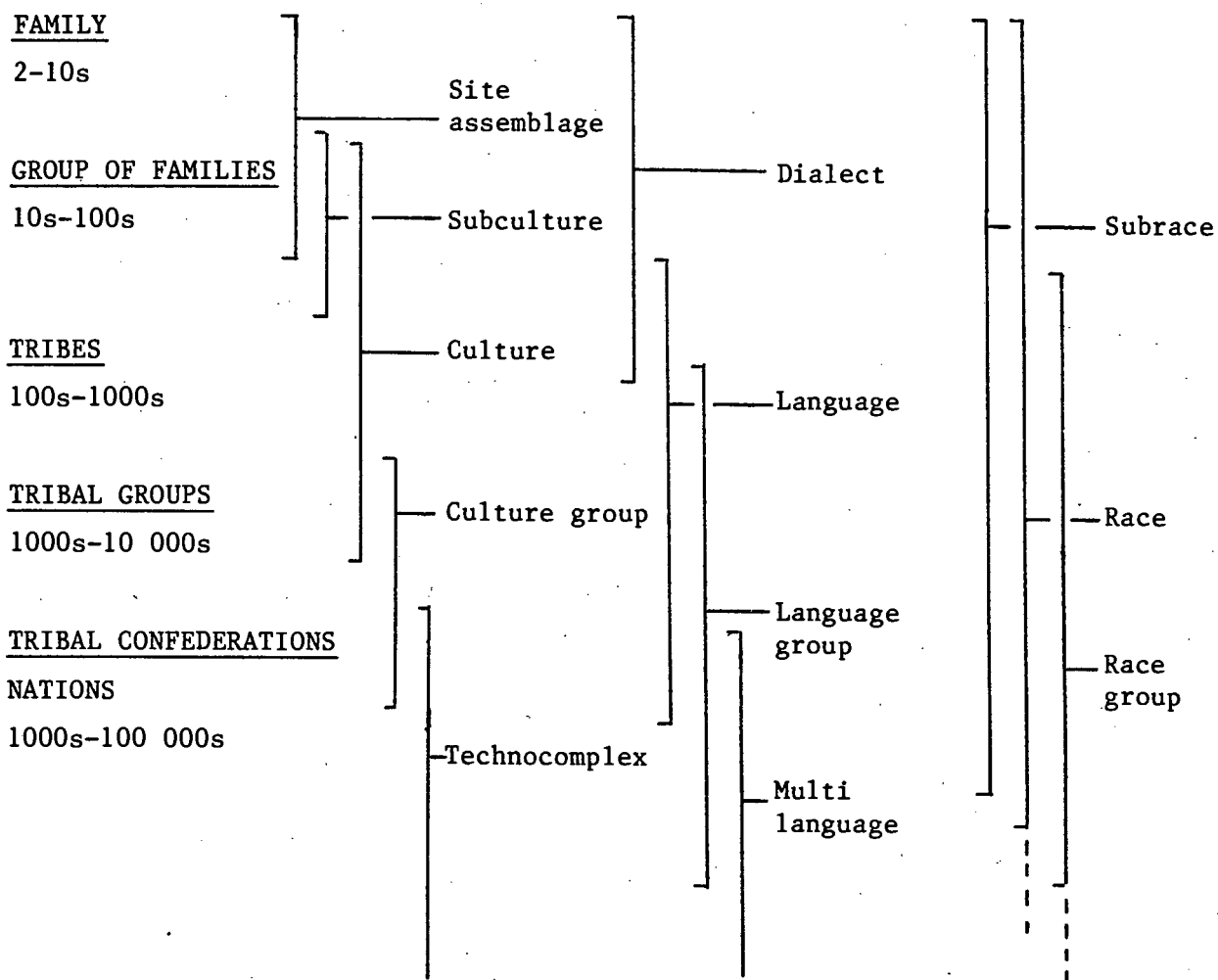


Fig. 5:1 Clarke's 'simplified attempt to illustrate the rough range of correlation between the hierarchical entity sets of four sociocultural dimensions - social, material, linguistic, genetic' (Clarke 1968:361 Fig.61).

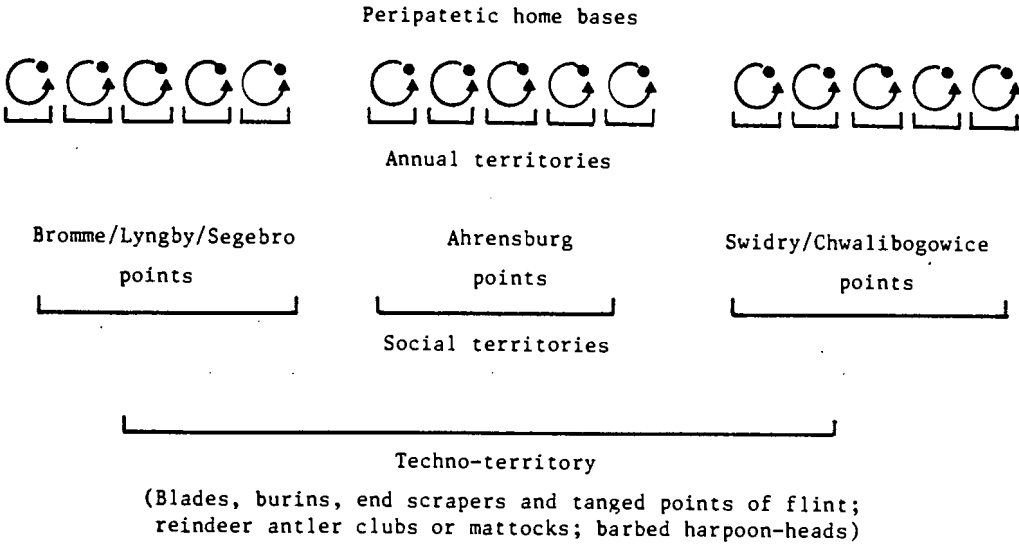


Fig. 5:2 Clark's (1975 Table 4) hierarchy of human territories on the north European plain during the final stages of the late-glacial period.

SCALES	UNITS		CONCEPTS
artifact ecofact	TYPE		<u>attributes, assemblages</u>
site			<u>lifespace arrangements</u> - the layout of campsites, positioning of personnel within camps, organisation of activities such as butchering animals, sleeping, eating, mending tools
local region	SYSTEM	SETTLEMENT	<u>exploitation territory</u> - the area surrounding a site which is habitually exploited by the inhabitants of the site. Its defence is not implied <u>catchment</u> - total area from which the contents of a site have been derived. May be greater than the site territory
sub-region			<u>site extended territory</u> - the area that supports resources used by the site's inhabitants, but that lies outside the exploitation territory and is seldom if ever visited. The resources are likely to be mobile
region			<u>seasonal territory</u>
inter-regional			<u>annual territory</u> - total area exploited by a group throughout the year <u>home range</u> <u>mating network</u>
			<u>information networks</u> <u>lifetime territory</u> <u>alliance system and network</u>

Table 5:1 Gamble's "nested hierarchy of analytical scales for the investigation of mobile human adaptive strategies" (1986:67 Table 2.7)

sq km. Social territories contain a number of what Clark terms mini-bands, each representing three or four households. These mini-bands which probably comprised about 25 people are thus equivalent to the entities commonly referred to in the anthropological literature as bands (Lee & De Vore 1968b). According to Clark, the households "united in social territories would have been knit together within the same network in two distinct ways, by sharing in the redistribution of materials and by displaying certain idiosyncratic styles" (Clark, G. 1975:22).

In terms of D.L. Clarke's (1968) scheme, the Thukela Basin social regions are probably most closely akin to his cultures, although at their initial stages they probably resembled better his subcultures, in particular regional subcultures. Clarke's cultures embody "the largest unit with internally the most richly cross-connecting and mutually reinforcing system of information of variety, uniting and stabilising every channel of human intercommunication and behaviour" (Clarke, D.L. 1968:287).

Culture areas are precipitated and maintained by social networks and the boundaries of the two should be broadly concurrent. D.L. Clarke (1968) views the development of cultural areas as intimately connected to population isolation, both in terms of intercommunication and their particular adaptations to differing regional conditions. Though I disagree with Clarke on the applicability of the adaptation concept and that the development of culture areas is necessarily associated with population isolation; it is possible, as will be argued, that differing regional subsistence strategies may be associated with

contrasting social identities.

Regional subcultures are defined as

"generically related, semi-discrete but continuous branches of single culture which by virtue of poor intercommunication and growing isolation gradually develops distinctive subcultures by divergent development pooled over local territories. Regional divergence is the clue to regional subculture development - frequently on the basis of spatial, topographic, genetic, ecological and communication isolation" (Clarke, D.L. 1968:236 & 237).

Considering social constructs and population size, the subculture is viewed as a grouping of families (10s-100s people) and the culture as the tribe (100s-1000s). Dialectical differences would occur at both the subculture and culture level.

Gamble has produced a nested hierarchy of analytical scales for the "investigation of mobile adaptive strategies" (Gamble 1986:67, see Table 5:1), and in doing so he has followed the practise of regional research designs such as those of Clarke (1972), Flannery (ed. 1976) and Renfrew & Wagstaff (eds 1982). Unfortunately, Gamble does not provide much discussion of the scheme itself, and thus the relationships between scale and analytical concepts and the analytical concepts themselves have not been spelt out.

H.J. Deacon has, on the basis of ethnographic analogy, proposed the following social hierarchical scheme:

"These groupings would range from the minimal unit of the nuclear family, the primary subsistence unit in that it is the limit of fragmentation, to aggregations of several families forming local residential groups linked with territorial rights, and to associations of local residential groups forming dialectically uniform population segments. At a higher level, fragmentation or integration would be expected to operate to give aggregates of dialectical tribes forming linguistic wholes with mutual intelligibility restricted to adjacent dialectic cells and

further to give divisions which will group different languages which are genetically related into major linguistic divisions" (Deacon, H.J. 1976:170).

In the context of eastern Cape Holocene hunter-gatherer society, H.J. Deacon suggested that the populations represented by Highlands Rock Shelter and Melkhoutboom Cave may have belonged to different linguistic groupings and that "their social distance was likely to have been higher than dialectic tribes" (Deacon, H.J. 1976:170). Deacon uses the differences in artefact styles, drawing particular attention to the backed pieces (p. 170), to argue for the social division between the people occupying these sites.

D.L. Clarke's (1968) cultures, G. Clark's (1975) social territories and H.J. Deacon's (1976) dialectical tribes are equivalent to Wobst's (1974) maximum bands which are defined as a loosely interlocking network of bands maintained through ritual communication and exchange. The social and stylistic idiosyncrasies of the participating bands and their members are evened out by the communication within the network, and this serves to integrate them into a more or less coherent social unit. Wobst argues further that "This unit, loose as it is, constitutes the highest level of social integration among hunters and gatherers" (Wobst 1974:152 my emphasis).

The most useful observations made during colonial times are those made by Bleek and Lloyd on nineteenth century northern Cape hunter-gatherer society, currently being restudied by J. Deacon (1986). Bleek and Lloyd identified four groups of dialectically different 'Bushmen'; the Flat 'Bushmen', the Grass 'Bushmen', the Berg (Mountain) 'Bushmen' and the Hardast River

'Bushmen'. The Flat and Grass 'Bushmen' were recorded in most detail. Although instances of group intermarriage were mentioned by Bleek and Lloyd's informants, it appears that the groups were primarily endogamous. No demographic data exist for these groups, but J. Deacon (1986) estimated that the Flat 'Bushmen' and Grass 'Bushmen' occupied territories of roughly 3500 sq km and 8400 sq km respectively.

The material and subsistence discrepancies between these groups as related by Bleek and Lloyd's informants (Deacon, J. 1986), are of considerable significance. The Grass 'Bushmen' used skin sieves to sieve termite eggs whilst the Flat 'Bushmen' used mat sieves. Dassie or jackal skins were worn by the Flat 'Bushmen' and the Berg 'Bushmen' wore cat skins. The Berg 'Bushmen' were the ones who made and bartered ostrich eggshell beads, and were also the ones said to eat baboons, whilst the Flat 'Bushmen' did not. A Flat 'Bushmen' told Bleek that Grass Bushmen made arrowheads out of white quartz, but metal was used by the Flat 'Bushmen'. This item is of special interest as the Grass 'Bushmen' apparently had closer ties with the Boers and Koranna, the most likely source of the metal, but it was the Flat 'Bushmen' who used metal arrowheads.

The foregoing discussion has highlighted pertinent aspects of hypothesised social entities and nineteenth century northern Cape hunter-gatherer groups (Deacon, J. 1986), considered to conceptually, and in some instances empirically, approximate the Thukela Basin social regions. In Chapter 3, I stated that I shall be using the term social region to apply to geographical area encompassed by an alliance network. By doing

so, I will provide for an on the ground analysis of these entities and try and establish the spatial parameters of a network and its temporal development. These social regions are thus viewed as geographical areas containing dialectically, socially and economically distinct groups of bands integrated through a dynamic network of social interaction into a cohesive social unit which is able to reproduce itself socially and biologically. It is through these networks that individuals and groups are linked into local and regional processes of social reproduction (Gamble 1986). Moreover, in terms of Wobst's (1974) understanding of this type of entity, they are viewed as constituting the highest level of social integration in the Thukela Basin hunter-gatherer society.

Next, the criteria necessary to identify discrete and independent social entities in the archaeological record are clarified. D.L. Clarke (1968) and G. Clark (1975) both state that differences between social entities will be expressed in the types of material culture which groups carry and distribute, and the idiosyncratic style applied to items common to different groups. But, as G. Clark (1975) commented, although the existence of social groupings at higher levels of abstraction is implicit in the redistribution of material cultural items, these distributions do not themselves define precisely the boundaries of social groups. Clark is of the opinion that "it is only where such patterns appear to conform within the boundary of stylistic provinces ... that they can define precisely the dimensions of macrogroups ..." (Clark, G. 1975:23).

The Bleek and Lloyd records on the northern Cape

hunter-gatherers are of vital significance because they provide examples of material differences perceived by the people themselves to reflect contrasting groups. Of additional interest are the different subsistence habits, for example the supposed eating of baboons by Berg 'Bushmen' and not by others, distinguishing the groups from one another. I suspect that this is partly what D.L. Clarke (1968) had in mind when he spoke, as mentioned earlier, of contrasting cultural groups displaying differing regional adaptations. The occurrence of fishing only north of the Thukela River is a local example of this phenomenon.

An example of the kinds of items people carry and distribute is provided by the !Kung hxaro alliance system which is maintained by the reciprocal exchange of gifts. According to Wiessner (1982:70), hxaro gift items can be any non-food items - for example, beads, arrows, ostrich eggshells, clothes, blankets, bowls and pots.

The above discussion provides some guidelines through which to begin distinguishing social entities according to the types of material cultural possessions people carry and distribute and subsistence differences. I would, however, like to pursue the issue of style. According to Hodder,

'the concept of style comes to have a central place in archaeological discourse because it refers to the historical particularity of culture and can be observed in all spheres of life, since all spheres of life are meaningful. Thus the economy is as much stylistic as the decoration on a potsherd' (Hodder 1985:10).

To explore these sentiments and the general issue of style further, a recent debate between Sackett (1985) and Wiessner (1985) is considered.

Sackett (1985) critically evaluated Wiessner's (1983) article on the stylistic meaning and social information contained in Kalahari hunter-gatherer projectile points. As Wiessner (1985) remarked, Sackett's criticisms not only related to her specific study but were really directed at a current trend in ethnoarchaeology and archaeology which emphasises the active role of material culture in social relations. Sackett himself subscribes to an isochrestic view of stylistic behaviour, which literally means 'equivalent in use' (Sackett 1985:157). On the difference between his approach and that of Wiessner and others, Sackett commented that 'The basic point of divergence ... is the question of whether style symbolises ethnicity because it is intended by artisans to do just that or because it happens to do so for other, perhaps less purposeful, reasons' (Sackett 1985:154). Of note though, is that they agree that both types of style symbolise group membership and group coherence, and others, such as Conkey (1980), Hodder (1979), Soffer (1985) and Wobst (1977) have also argued that social signaling and stylistic demarcation is an act of group or corporate identity that can be expected to emerge under various social conditions.

Sackett's and Wiessner's critiques of each other's positions show mutual acceptance that both types of behaviour influence style. Ultimately, the debate boils down to a difference of opinion as to which articles or elements reflect isochrestic behaviour and which are intentional significations of social relations. Their debate indicates that this issue is far from being resolved and requires more deliberation.

What, however, are the implications of this debate and

the issues raised therein, for describing and explaining the cultural material patterning of the Thukela Basin hunter-gatherers ? According to Wiessner (1985), if style represents intentional signification of social relations, then changing styles should be associated with changing social relations. On the other hand, Wiessner contends that isochrestic choices,

'once established should remain stable, providing a basis for predictability except in times of technological changes when one artefact form, which is perceived to be superior to the existing one, replaces it' and furthermore that 'style can lapse into isochrestic variation if an artefact's symbolic role wanes and stylistic comparison no longer incites social comparison' (Wiessner 1985:162).

Wiessner seems to be implying that isochrestic behaviour is of a purely functional nature not ultimately linked to social relations. As should be clear from the foregoing discussion, this is not, according to my understanding, how Sackett defines it. Moreover, I disagree with one of the obvious implications of Wiessner's position, namely that not all stylistic behaviour is linked to social relations. As Hodder (1985) has argued, all types of stylistic behaviour are involved with social processes and thus will be part of the 'negotiation' of social strategies and relations.

The level of social organisation to be concentrated on and the criteria for recognising social entities have been discussed. Next, we concentrate on the practical application of these phenomena. In essence, I will propose that the people occupying the research area from about 7000 BP to sometime before 4000 BP belonged to one extended social region, but thereafter,

considerable social restructuring, associated with population growth, occurred and this resulted in the emergence of three discrete and independent social regions. In practical terms this will entail demonstrating uniformity between earlier assemblages which are subsequently replaced by three different, and regionally distinct, sets of assemblages.

I will first present the material cultural data and then discuss their implications. Subsistence strategies will also form part of this discussion.

No comment is required on the lithic raw material and artefact terminology used here as terms generally accepted in the southern African context have been used. Concerning the other categories, the terms used are self-evident.

THE MATERIAL CULTURAL RECORD

Stone artefacts

Fig. 5:3, which illustrates the composition of the backed piece assemblages, shows that, save Mgede Shelter which has only one specimen, the 7000-6500 BP assemblages throughout the research area display considerable uniformity, but thereafter differences emerge between assemblages, corresponding with their geographical positioning. The early assemblages are overwhelmingly dominated by segments which then continue to dominate the Gehle Shelter assemblages to around 5000 BP but decrease considerably at Nkupe Shelter after 6650 BP. Three groupings are discernible in the post 5500 BP backed piece assemblages. At Nkupe Shelter, backed blades and backed points

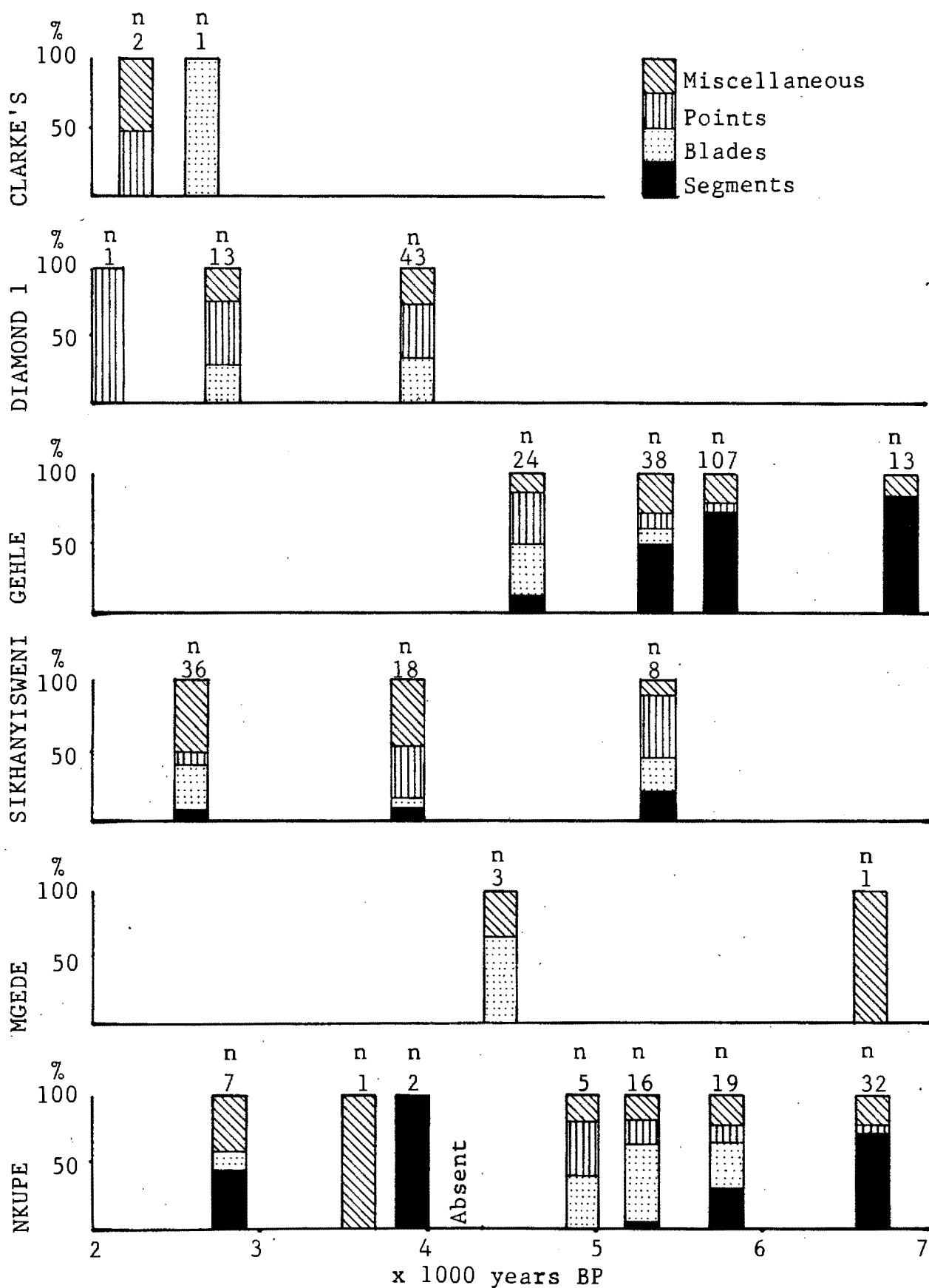


Fig. 5:3. Proportion of different types among the backed tools.

dominate until ca 4250 BP with few, or no, segments represented. No backed pieces were recovered from the ca 4250 BP level, but thereafter the diagnostic assemblages are, once again, segment dominated.

In contrast to Nkupe Shelter, segments dominate the Gehle Shelter backed pieces until around 5000 BP, then giving way to backed pieces and backed blades which are more or less equally represented. The Diamond 1 and Gehle Shelter ca 4000 BP assemblages display similar compositions, roughly equal proportions of backed blades and backed points and low segment proportions. Thereafter the Drakensberg sites, Diamond 1 and Clarke's Shelter, are dominated by backed blades and backed points with segments absent.

Sikhanyisweni Shelter occupies a position intermediate between Nkupe Shelter on the one hand and Gehle Shelter, Diamond 1 and Clarke's Shelter on the other. Segments comprise a quarter of the Sikhanyisweni Shelter ca 5500 BP formal tools, but then decrease considerably. They are, however, still present in the uppermost level. Backed points and backed blades both occur at this site, with the former better represented earlier on, and backed blades thereafter.

In summary then, the early similarity evident between sites occupying more or less opposite ends of the research area disintegrates, and by 4000 BP three sets of backed piece assemblages are discernible. Those that are dominated by segments, those that are dominated by backed points and backed blades and have some segments and finally those without segments and dominated by backed blades and backed points. The sites with

segments are situated north of the Thukela River and those without, to the south. It is of interest that in the eastern Cape Holocene hunter-gatherer context, H.J. Deacon (1976) views the presence of backed points and segmented backed bladelets and the virtual exclusion of segments at Highlands Rock Shelter, in contrast to the prolific occurrence of segments at Wilton sites, as a strong indicator of social differentiation between the people occupying these sites.

As with the backed pieces, scraper backing reflects an early uniformity across the research area which then gives way to regional differences (Fig. 5:4). In the following discussion, Type 1 scrapers are backed opposite the scraping edge, Type 2 are backed along one side perpendicular to the scraping edge and Type 3 scrapers are backed along two sides perpendicular to the scraping edge. The 7000 - 6500 BP Gehle Shelter and Nkupe Shelter assemblages are both dominated by Type 3 scrapers. The Mgede Shelter 6550 BP and Sikhanyisweni Shelter ca 5500 BP assemblages which contained only two specimens each and thus cannot be regarded as anything more than suggestive, provided one Type 2 and one Type 3 and two Type 3 scrapers respectively. Type 3 scrapers remain dominant throughout the Sikhanyisweni Shelter deposits, distinguishing it from the other sites.

Type 1 scrapers appear almost simultaneously in the Nkupe Shelter and Gehle Shelter assemblages soon after 6000 BP. Thereafter they are represented in only one other Nkupe Shelter assemblage (4950 BP) but occur in increasing proportions at Gehle Shelter. The uniformity between the Gehle Shelter and Diamond 1 ca 4000 BP backed piece assemblages also characterises their

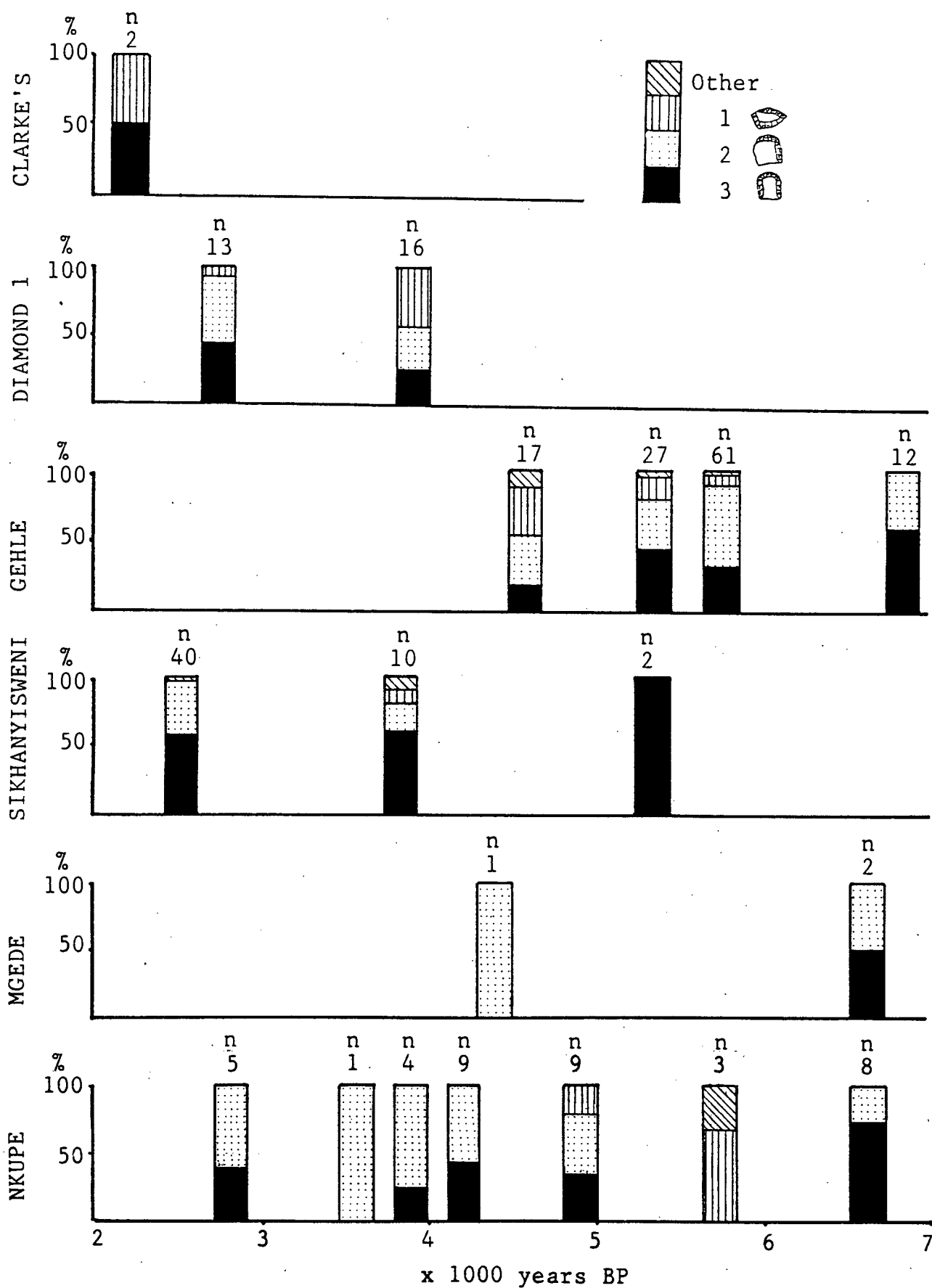


Fig. 5:4. Proportion of different types among the backed scrapers. Type 1, backed opposite the working edge; Type 2, backed along one lateral perpendicular to the working edge; Type 3, backed along two laterals perpendicular to the working edge.

backed scraper proportions, as both contain almost equal proportions of Type 1, 2 and 3 backed scrapers. Thereafter only two of the four Drakensberg 3000 - 2000 BP assemblages contained backed scrapers. Both these assemblages produced Type 1 scrapers (which it will be remembered are absent after 5000 BP at Nkupe Shelter) and Type 3 scrapers, and Type 2 scrapers occur at Diamond 1.

In summary, the similarity reflected by the early backed scrapers, is not subsequently evident. After 4500 BP, differences emerge between Sikhanyisweni Shelter and the other sites and also between Gehle Shelter, Diamond 1 and Clarke's Shelter on the one hand and Nkupe Shelter on the other. Thus, mirroring the backed piece patterning.

Ground stones are a somewhat enigmatic feature of the Holocene stone assemblages, not only in the Thukela Basin but throughout southern Africa, as they occur commonly but seldom in large proportions. As far as I know, no serious study of their technological and/or social purposes has been undertaken. Notwithstanding this, they are included in the present analysis, and their temporal and spatial distribution patterning is instructive.

The spatial and temporal distribution of ground stone tends to support the pattern suggested by the backed piece and backed scraper assemblages (Fig. 5:5). Before 5000 BP, ground stone occurs primarily in the Sikhanyisweni Shelter, Nkupe Shelter and Gehle Shelter segment rich layers. Thereafter however, they occur relatively commonly at Sikhanyisweni Shelter, are unrepresented at Gehle Shelter, Clarke's Shelter and Diamond

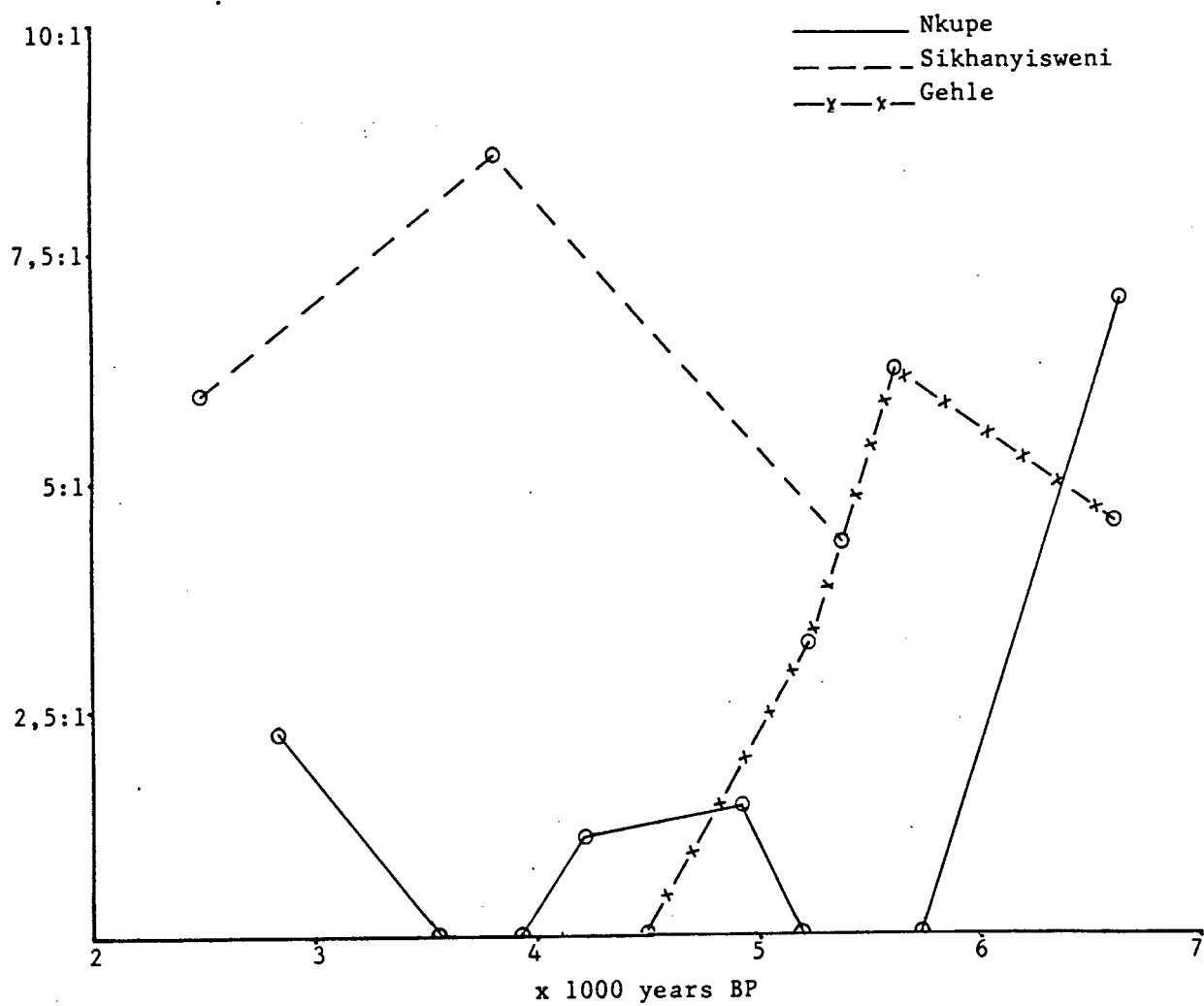


Fig. 5:5. Ground stone densities: frequencies per volume of deposit.

1 and occur in the Nkupe Shelter 4950, ca 4250 and 3190 - 2480 BP deposits. Thus, repeating the early uniformity between sites throughout the research area and the subsequent tripartite Sikhanyisweni Shelter - Gehle Shelter, Clarke's Shelter and Diamond 1 - and Nkupe Shelter division.

Part of a ground stone ring was recovered from the Nkupe Shelter ca 4250 BP level.

The scraper, adze and segment mean lengths, widths and heights were calibrated, but only the length results are reviewed here as they contribute most to the present exercise. The scraper mean lengths patterning is consistent with that obtained from the backed pieces, backed scrapers and ground stones (Fig. 5:6). The Sikhanyisweni Shelter scrapers are clearly distinguished from the others by their considerably greater mean lengths. The Gehle Shelter and Nkupe Shelter 7000 - 6500 BP hornfels scrapers display identical mean lengths. Thereafter hornfels scrapers at both sites decrease in length, but the Nkupe Shelter scrapers decrease substantially to 5760 BP and then increase again until ca 4250 BP while the Gehle Shelter scrapers decrease consistently until around 4000 BP. The Mgede Shelter hornfels scrapers behave differently to both these sites, being shorter than them in the early deposits and experiencing minimal change between then and 4390 BP.

The Gehle Shelter CCS scraper lengths decrease in the early deposits, but then increase after 5000 BP. The ca 4000 BP Gehle Shelter and Diamond 1 CCS scrapers display similar mean lengths, as do the subsequent Diamond 1 and Clarke's Shelter CCS scrapers.

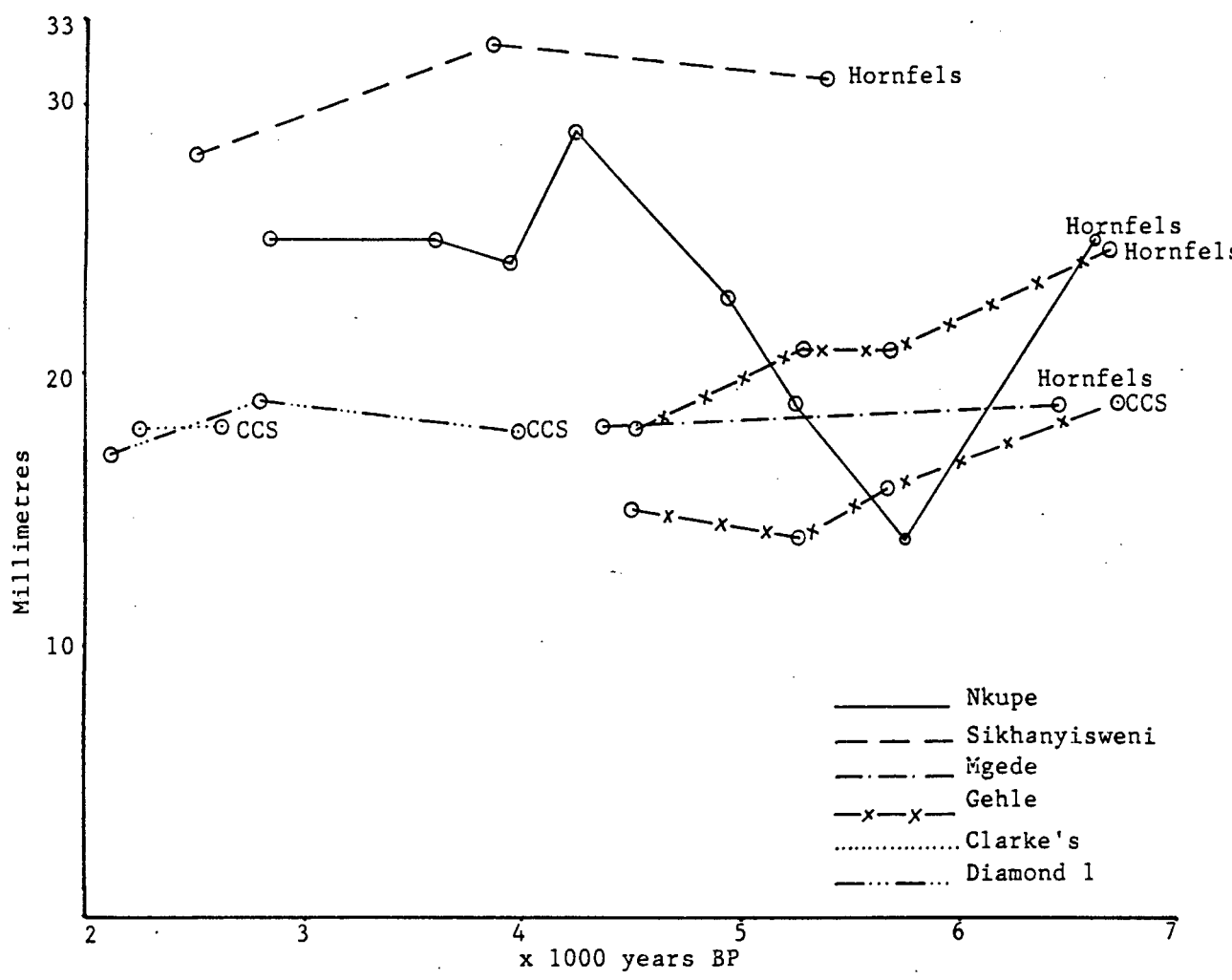


Fig. 5:6. Mean lengths of scrapers according to raw material.

Of note is that although hornfels scrapers are generally longer than their CCS counterparts, the Clarke's Shelter and Diamond 1 CCS scrapers mean lengths match that of the Gehle Shelter 4000 BP and Mgede Shelter hornfels scrapers. This suggests to me that while the size of CCS nodules may prescribe the size of CCS scrapers, no reason exists as to why hornfels scrapers could not have been made smaller than they generally are, and indeed this does occur. Gehle Shelter is particularly interesting as from shortly before 5000 BP the CCS and hornfels scraper lengths converge. It is somewhat unfortunate that the Gehle Shelter deposits curtail around 4000 BP and that so few hornfels scrapers occur in the Drakensberg. Nevertheless, the previous examples suggest that the length differences between the post-4000 BP Nkupe Shelter and Sikhanyisweni Shelter hornfels scrapers on the one hand and the Drakensberg CCS scrapers on the other may not be entirely conditioned by raw material differences.

The pre-4000 BP Nkupe Shelter, Mgede Shelter and Gehle Shelter (hornfels) mean adze lengths display uniformity (Fig. 5:7). The Gehle Shelter ca 4000 BP CCS adzes are considerably shorter than their hornfels counterparts and are similar in length to the Diamond 1 ca 4000 BP CCS adzes. The post-4000 BP mean adze lengths diverge in the same manner as the scraper lengths, but the differences are less pronounced. Sikhanyisweni Shelter hornfels adzes are longest, followed by the Nkupe Shelter hornfels adzes and finally the Diamond 1 and Clarke's Shelter CCS adzes. Though the Sikhanyisweni Shelter and Nkupe Shelter adzes are on hornfels and the Diamond 1 and Clarke's Shelter adzes on

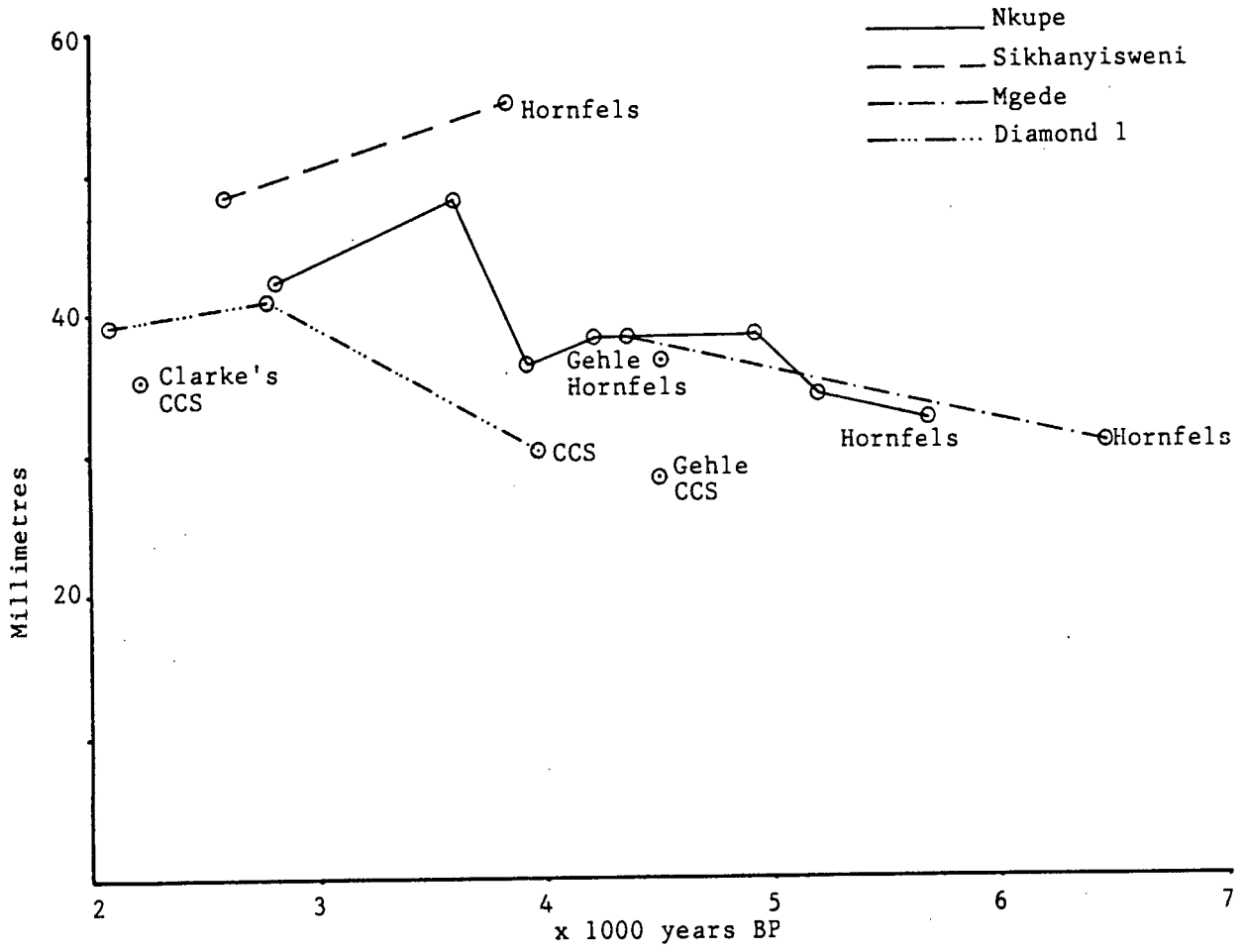


Fig. 5:7. Mean lengths of adzes according to raw material.

CCS, it is of note that the mean lengths of some later CCS adze assemblages are greater than that of some of the pre-4000 BP hornfels adze assemblages. Moreover, the ca 2800 BP Diamond 1 CCS and Nkupe Shelter hornfels adze mean lengths are not too different. Thus, as with scrapers, while the length discrepancies between the post-4000 BP hornfels and CCS adzes were probably significantly influenced by raw material properties, they cannot be entirely ascribed to them.

Segments from all the Gehle Shelter assemblages and the Nkupe Shelter 6650 and 5760 BP assemblages were measured. Their mean lengths are tightly grouped, excluding the Nkupe Shelter 5760 BP assemblage which has a mean of 7,4 mm, they vary between 8,4 mm and 9,3 mm.

Summing up the adze, scraper and segment mean length spatial and temporal patterns, it would seem that the earliest assemblages throughout the research area generally display uniformity but thereafter diverge and after around 4500 BP three geographically distinct regions are discernible. Thus, corroborating the conclusions reached with the backed pieces and backed scrapers.

The raw material composition of the assemblages also offers interesting insights. Gould & Saggers suggest, in the context of western Australia, that the "long-distance movement or exchange of lithic materials presupposes the existence of long-distance social relationships - in other words, a kind of "envelope" of social space that expands or contracts according to the degree of stress imposed by drought conditions" (Gould & Saggers 1985:122; see also Gould 1978). While the causes of

stress will, no doubt, vary between situations, their comments on the relationship between the movement of exotic stones and the geographical extent of social relationships are of great significance in the present context, as will become clear.

CCS nodules erode out of the high Drakensberg basaltic soils and thus do not occur naturally north of the Thukela River. Out of the Drakensberg, CCS nodules can be collected from the rivers that drain it. Hornfels, which is formed when dolerite dykes intersect shale beds, is differently distributed. It is prolific in the research area outside of the Drakensberg, but is rare in the Drakensberg where it only outcrops near Royal Natal National Park (in which Diamond 1 is situated), Giants Castle Game Reserve and Champagne Castle (Geological Map of South Africa 1984).

The CCS and hornfels composition of the sites essentially reflect their natural distributions (Fig. 5:8). Thus, CCS dominates the Diamond 1 and Clarke's Shelter assemblages, hornfels dominates the Nkupe Shelter, Sikhanyisweni Shelter and Mgede Shelter assemblages and at Gehle Shelter hornfels is slightly more common than CCS. Significantly though, CCS is best represented in the levels dated to before 4000 BP at Nkupe Shelter and Mgede Shelter (Fig. 5:8). CCS's natural distribution along with its decreasing proportions at these sites suggests that their occupants were reducing their contact with the CCS source area; especially when considering that CCS was favoured in scraper and backed piece manufacture, as will be shown next.

Figs 5:9, 5:10 and 5:11 illustrate the raw material composition of the formal tools, backed pieces and scrapers

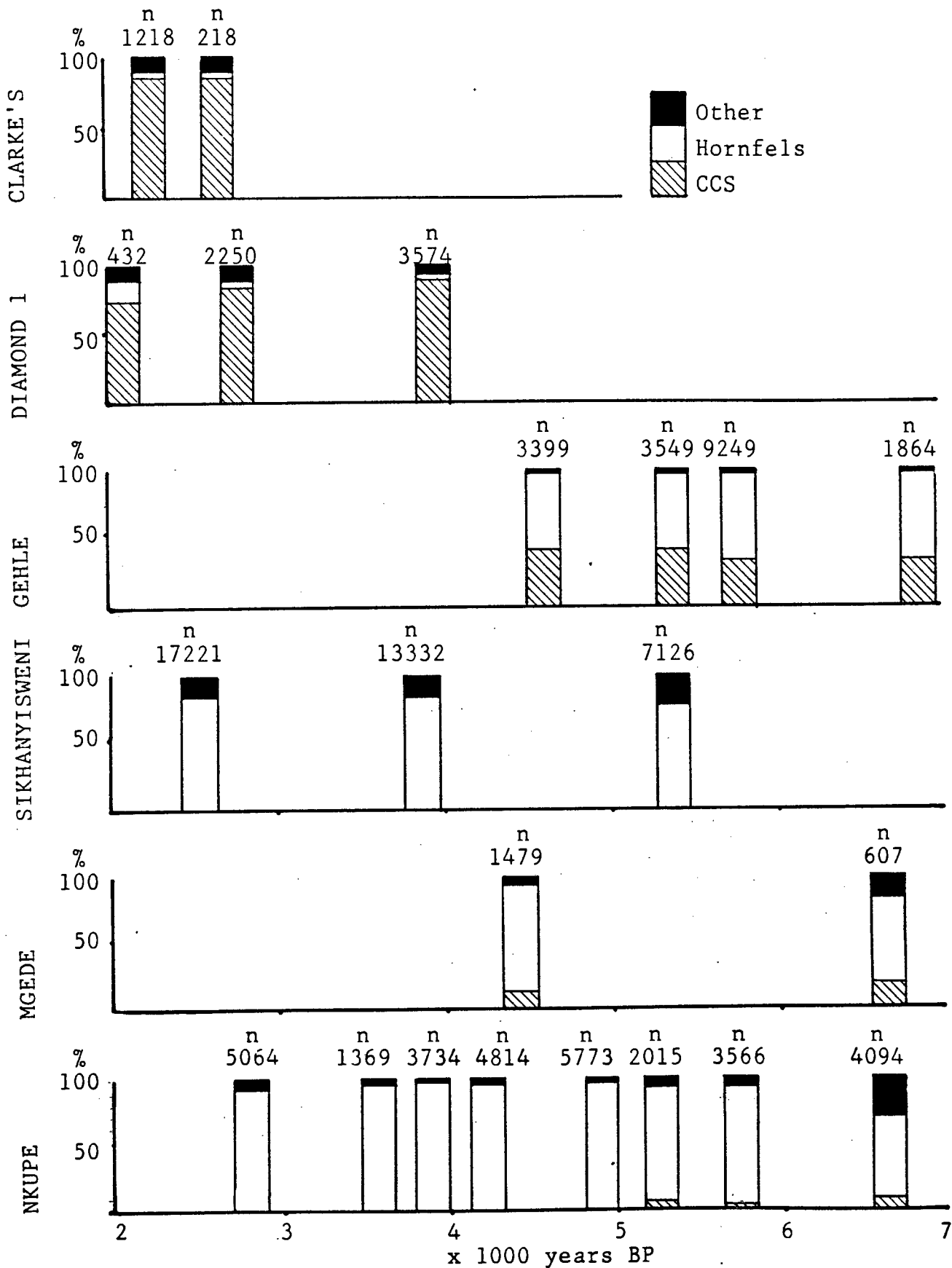


Fig. 5:8. Raw material composition of the lithic assemblages. CCS occurs in all the layers of Nkupe Shelter and Sikhanyisweni Shelter, but when less than 1% it is not shown.

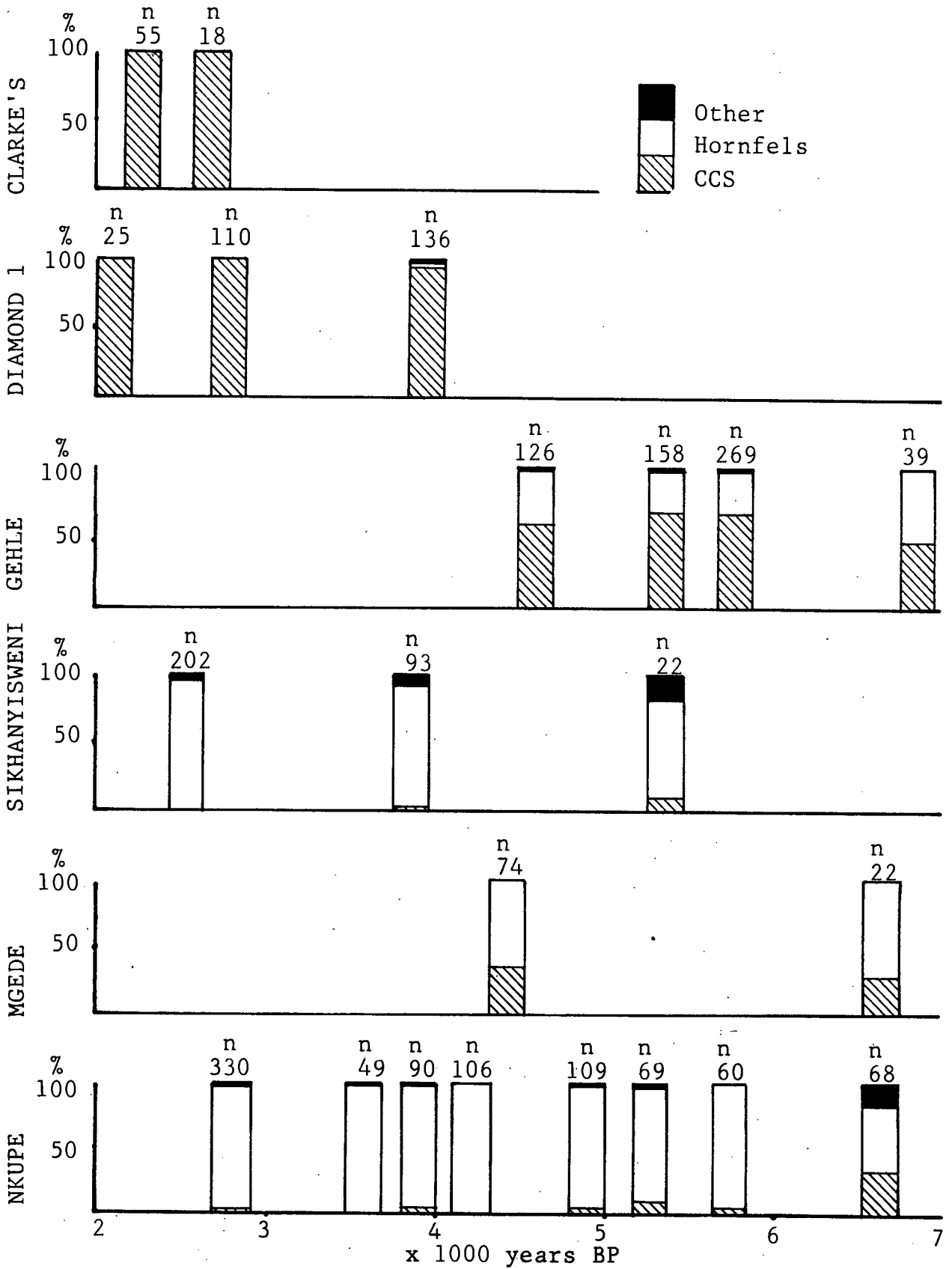


Fig. 5:9. Raw material composition of the formal tools. CCS comprises less than 1% of the Sikhanyisweni Shelter ca 2500BP formal tools.

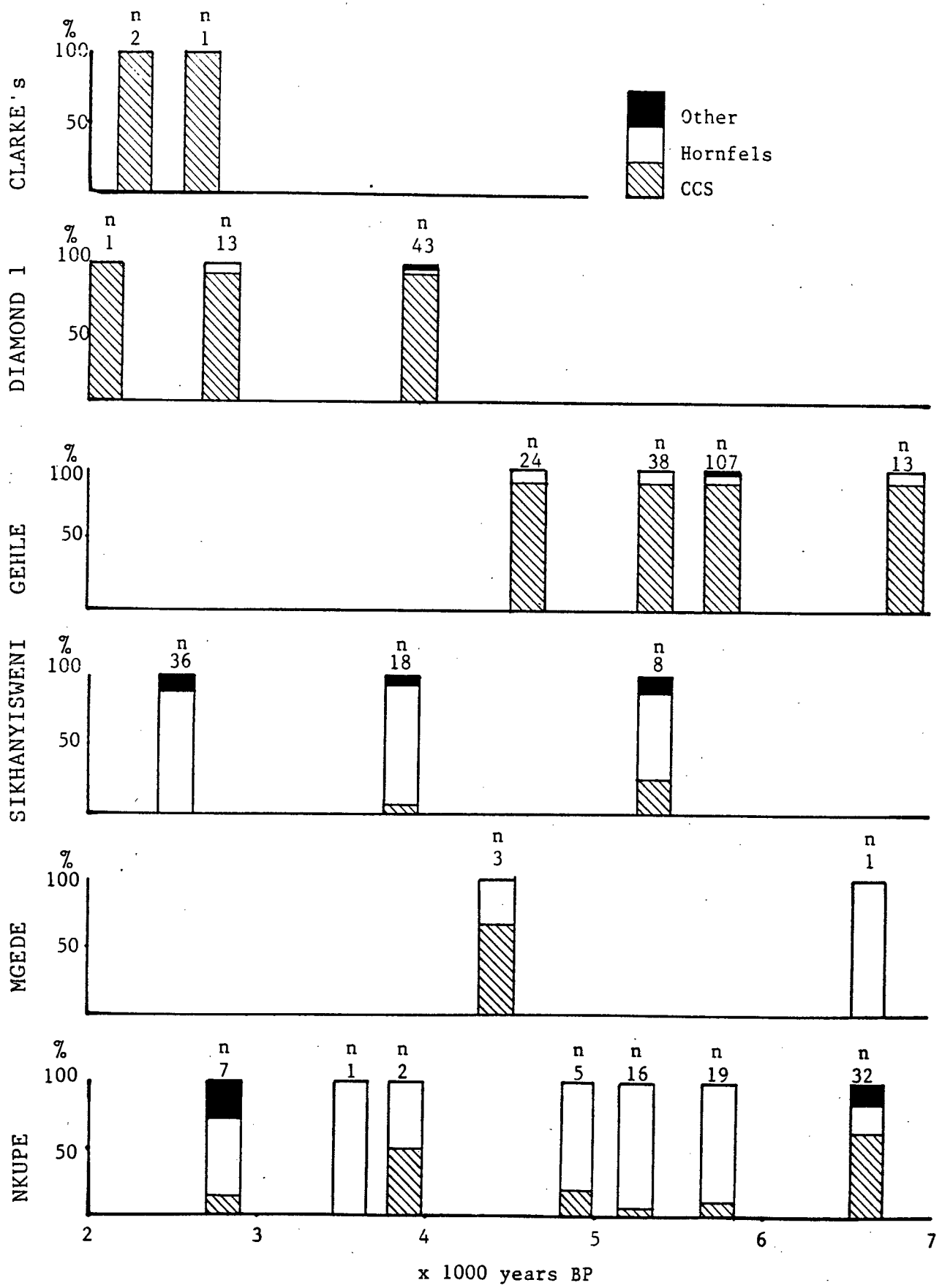


Fig. 5:10. Raw material composition of the backed pieces.

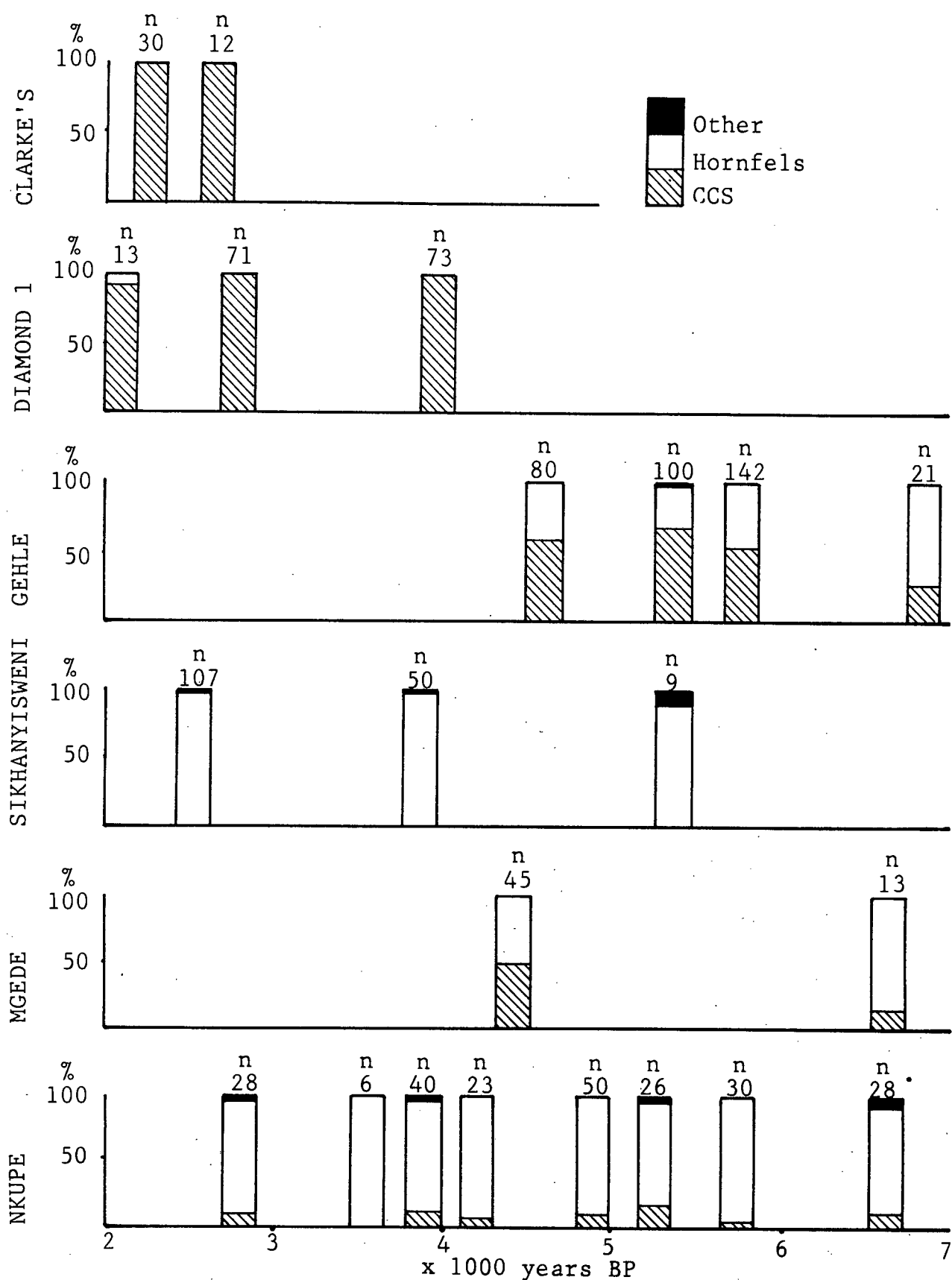


Fig. 5:11. Raw material composition of scrapers. CCS comprises less than 1% of the Sikhanyisweni Shelter ca 2500BP scrapers.

respectively. These figures illustrate that the CCS representation among the formal tools, and especially backed pieces and scrapers, far exceeds its overall presence. Excluding the Mgede Shelter 4390 BP backed pieces of which there are only three, the greatest use of CCS north of the Thukela River is reflected in the segment rich Nkupe Shelter 6650 BP assemblage.

All the Diamond 1 and Clarke's Shelter adzes are on CCS, all the Nkupe Shelter (save two), Sikhanyisweni Shelter and almost all the Mgede Shelter adzes are on hornfels and these raw materials comprise about equal amounts of the Gehle Shelter adzes.

The almost exclusive use of locally available hornfels for adzes north of the Thukela River and the preferred manufacture of scrapers and backed pieces in exotic CCS assumes added importance when considering adzes were probably primarily associated with plant food gathering (women's activities) and scrapers and backed pieces with the hunting and processing of meat (men's activities) (Mazel 1978). It is unlikely that these trends result from the raw material's physical characteristics. In sites south of the Thukela River, most adzes are on CCS and in all the sites, save Clarke's Shelter, hornfels was used in the manufacture of scrapers and backed pieces. These usage patterns are discussed further in the following chapters.

Considering the lithic data together, it would appear that the earlier assemblages are consistent in displaying a uniformity across the research area which then gives way to a diversity which has a definite regional character. The raw material data supports this scenario - CCS, only available from

the Thukela River and south, occurs in decreasing proportions in sites north of the Thukela River. Thus, arguably, indicating reduced contact between the people north and south of the Thukela River.

Worked bone

The following discussion of the worked bone patterning is based on the proposition that the economy is stylistic and therefore reflects a social reality (Hodder 1985). Thus, although the worked bone patterning can be interpreted within a functional framework, I believe that it must also be analysed in terms of social relations. The scale at which this analysis takes place is critical. In the context of the Thukela Basin, for example, contrasting worked bone assemblages could reflect groups using different artefacts for the same activities and this could serve to distinguish them socially. But, perhaps the strongest argument that can be presented at this point for the Thukela Basin worked bone patterning reflecting a social reality, is that some aspects are indeed patterned and this patterning coincides with the patterning reflected by other material culture items. It is hard to believe that this would have simply occurred fortuitously.

Thus, the functional and social interpretations are not necessarily in conflict with each other and are not mutually exclusive. Indeed, both can be profitably applied to the Thukela Basin worked bone patterning. In the present context, however, I concentrate on the social implications of this patterning.

Fig. 5:12 illustrates the worked bone densities, showing

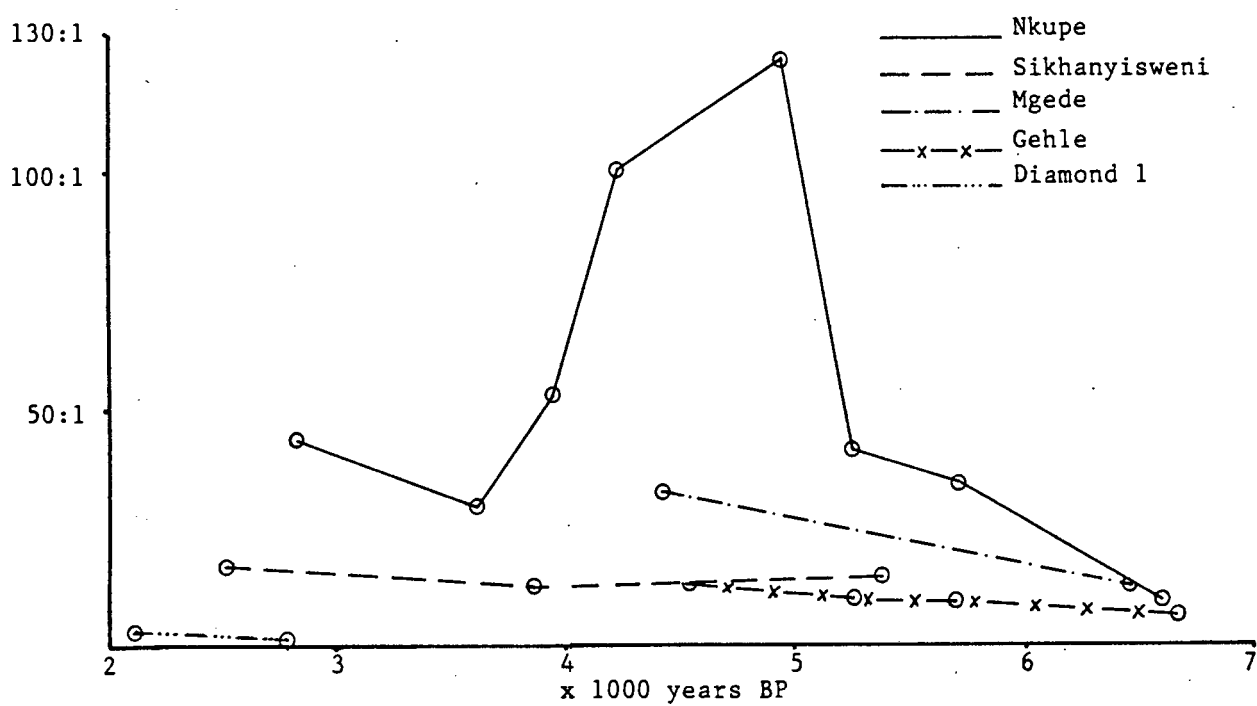


Fig. 5:12. Worked bone densities: frequency per volume of deposit.

that the 7000 - 6500 BP assemblages reflect similar densities but that thereafter several trends emerge.

Nkupe Shelter displays the greatest densities, particularly in the ca 5250 - 3950 BP period. The Mgede Shelter densities are closest to Nkupe Shelter, but the absence of 6550 - 4390 BP deposits here disallows comment on whether a similar peak in worked bone densities would also have typified this site. Gehle Shelter and Sikhanyisweni Shelter, which overlap for almost a thousand years between ca 5400 - 4400 BP, display similar densities which are less than the previous sites. Diamond 1 and Clarke's Shelter, however, either have no worked bone or display negligible densities. Other Drakensberg sites also reflect a paucity of worked bone, for example, the Main Cave 0,45-0,90 m deposits which probably date from before 4000 to around 2000 BP produced only six pieces of worked bone (Willcox 1957). Moreover, on the basis of his research and the Wells (1933) early 1930s Cathedral Peak and Cathkin Park expedition, Willcox (1957), already thirty years ago, noted the scarcity of worked bone in the Drakensberg.

In considering the composition of these assemblages, I focus on the types best represented (Fig. 5:13) and those types with specific interest value. The 7000 - 6500 BP assemblages cannot be treated seriously because they produced so few diagnostic pieces. Thereafter, several differences emerge. Sikhanyisweni Shelter is distinguished from the other sites by the absence of spatulae and the fact that awls were only represented in its uppermost layer, and then in negligible proportions. At Nkupe Shelter, on the other hand, awls dominate

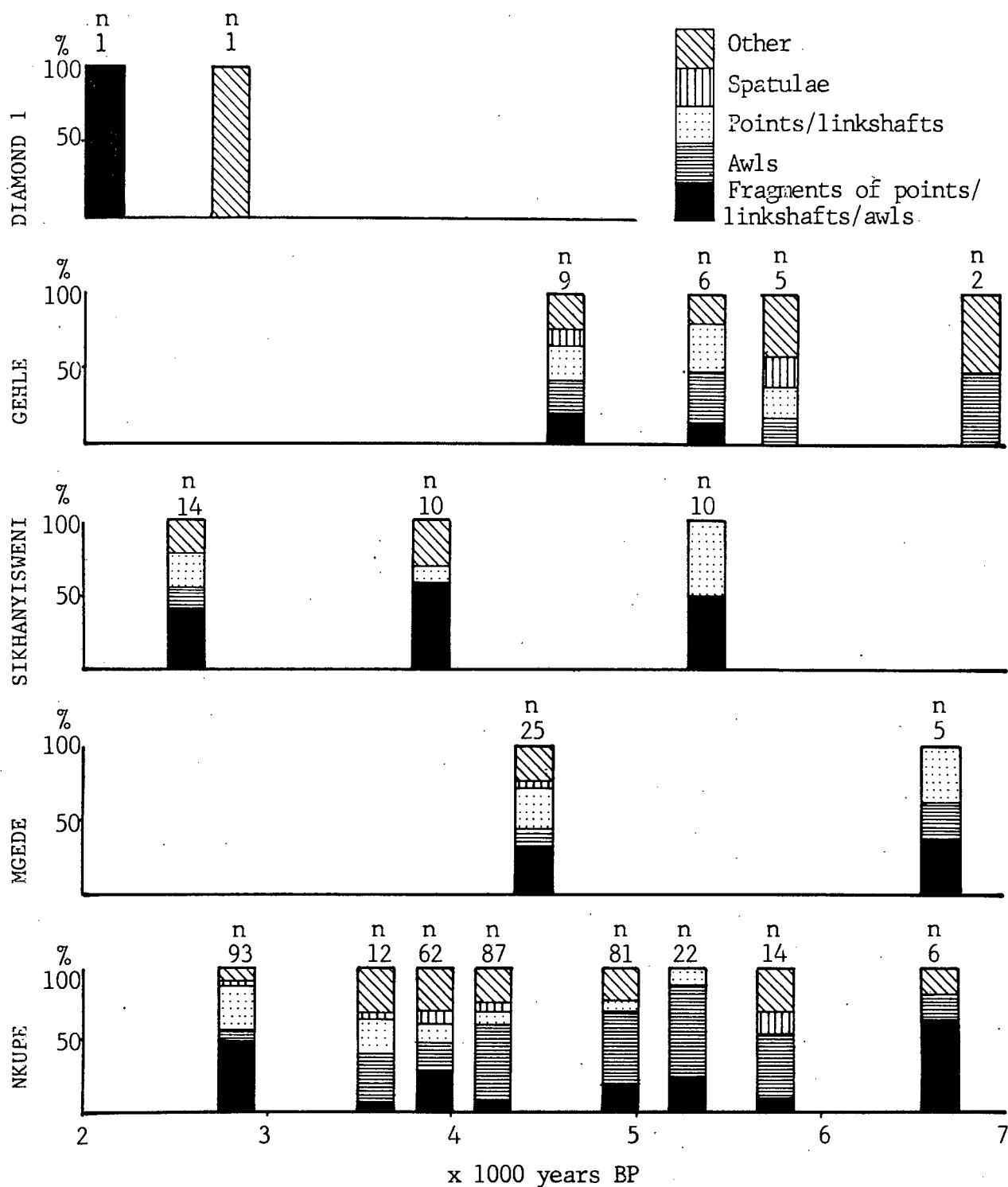


Fig. 5:13. Composition of the worked bone assemblages.

the 5760 - ca 4250 BP deposits. In subsequent Nkupe Shelter assemblages, points and linkshafts assume greater significance but awls persist. At Gehle Shelter and Mgede Shelter points and linkshafts combined are better represented than awls. Spatulae occur in most of the Nkupe Shelter levels and half the Gehle Shelter and Mgede Shelter levels, and generally vary between 3 and 14% of each level's worked bone.

Mini-points, which vary in length between 13-19 mm, were recovered only from the Nkupe Shelter 5760, 4950 and ca 4250 BP and Mgede Shelter 4390 BP levels (Mazel 1986a). As these articles are extremely delicate, it is possible that their absence at Sikhanyisweni Shelter and Gehle Shelter, whose deposits appear not to have been conducive to the preservation of bone, relate to postdepositional factors. Nevertheless, it is of significance that they were recovered only from these two sites which are about 25 km apart.

When first considering these items, I was tempted to suggest a conventional functional explanation. The most plausible function that came to mind was that they were used as fish hooks, especially as they generally predate fish hooks at both sites. On closer examination, however, it is evident that they are pointed only at one end and are flattened at the other and further there is no groove or any other suggestion that twine was wound around them. The latter feature must be seen in conjunction with their delicate nature. These factors as well as the fact that, save the Mgede Shelter 4390 BP deposits, there are no fish remains associated with these artefacts, argue against their use as fish hooks. On the basis of their seemingly

restricted temporal and geographical distribution and the arguments against a functional explanation, it is tentatively suggested that an understanding of these objects should be sought in terms of social identities and interactions.

Three broken rings, unique in the Thukela Basin hunter-gatherer context, were recovered from the Nkupe Shelter ca 4250 BP deposits. Fish hooks appear almost simultaneously at Mgede Shelter (4390 BP) and Nkupe Shelter (ca 4250 BP). Thereafter they occur only at Nkupe Shelter.

Ostrich Egg Shell (OES) pieces and beads

No OES pieces nor OES beads (save one bead from the surface of Diamond 1 which may postdate 2000 BP) have been recovered from sites south of the Thukela River, in particular Gehle Shelter, Diamond 1, Clarke's Shelter and Main Cave (Willcox 1957). Sites to the north of Thukela River, however, produced OES pieces and beads, and display patterned spatial and temporal distributions (Figs 5:14 & 5:15).

Low densities of OES characterised the Mgede Shelter 6550 BP and 4390 BP deposits, but this does not apply to the other sites north of the Thukela River. Nkupe Shelter displays a relatively high OES density at 6650 BP and this increases between then and 5760 BP. Thereafter, however, it drops substantially to 4950 BP, remaining low or absent until 3190 - 2480 BP when it increases again. Sikhanyisweni Shelter and Nkupe Shelter display similar OES densities around 5500 BP, however, while the subsequent Nkupe Shelter densities dropped, the Sikhanyisweni Shelter densities increased substantially to 3850 BP, dropping

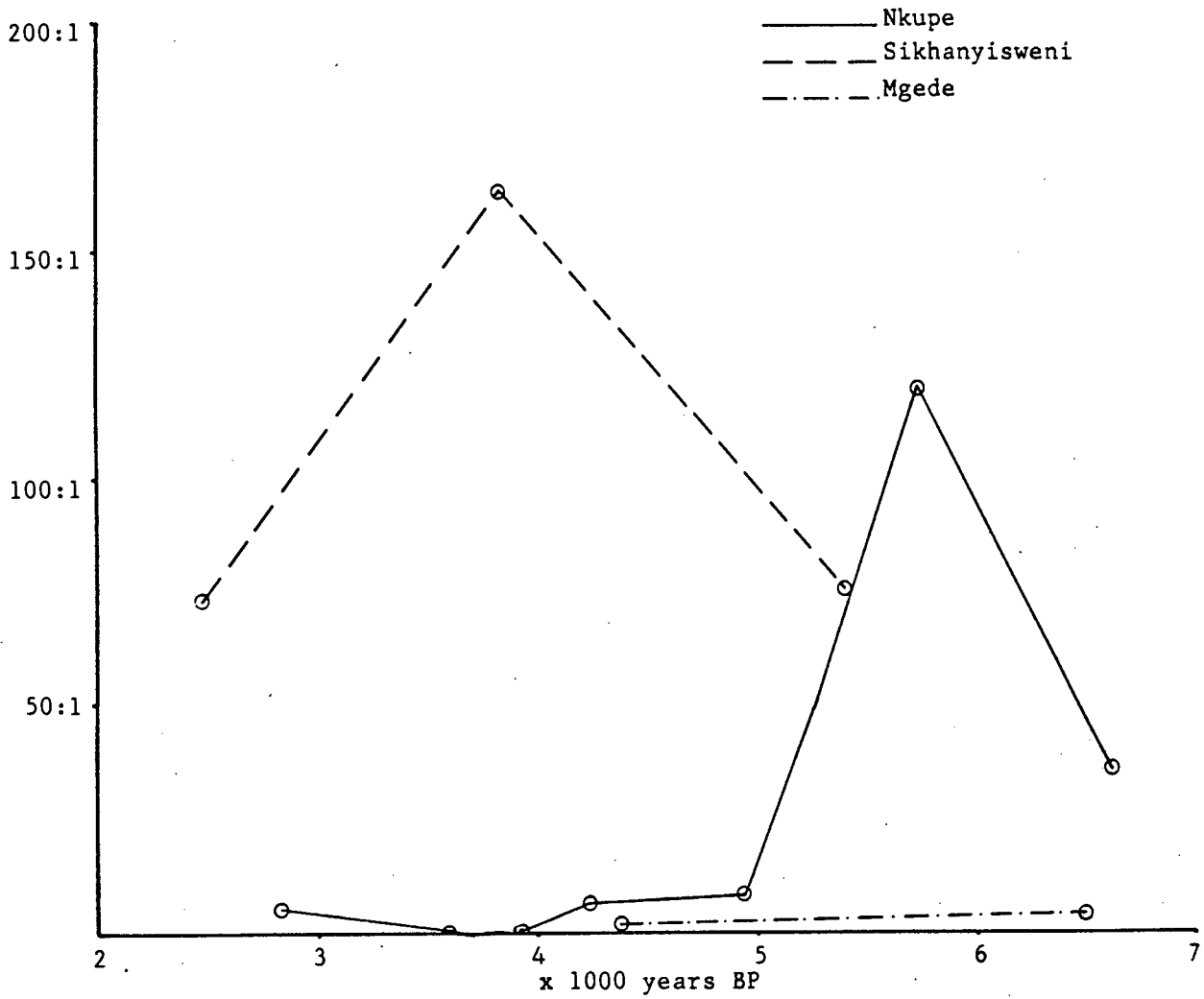


Fig. 5:14. OES pieces densities: frequency per volume of deposit.

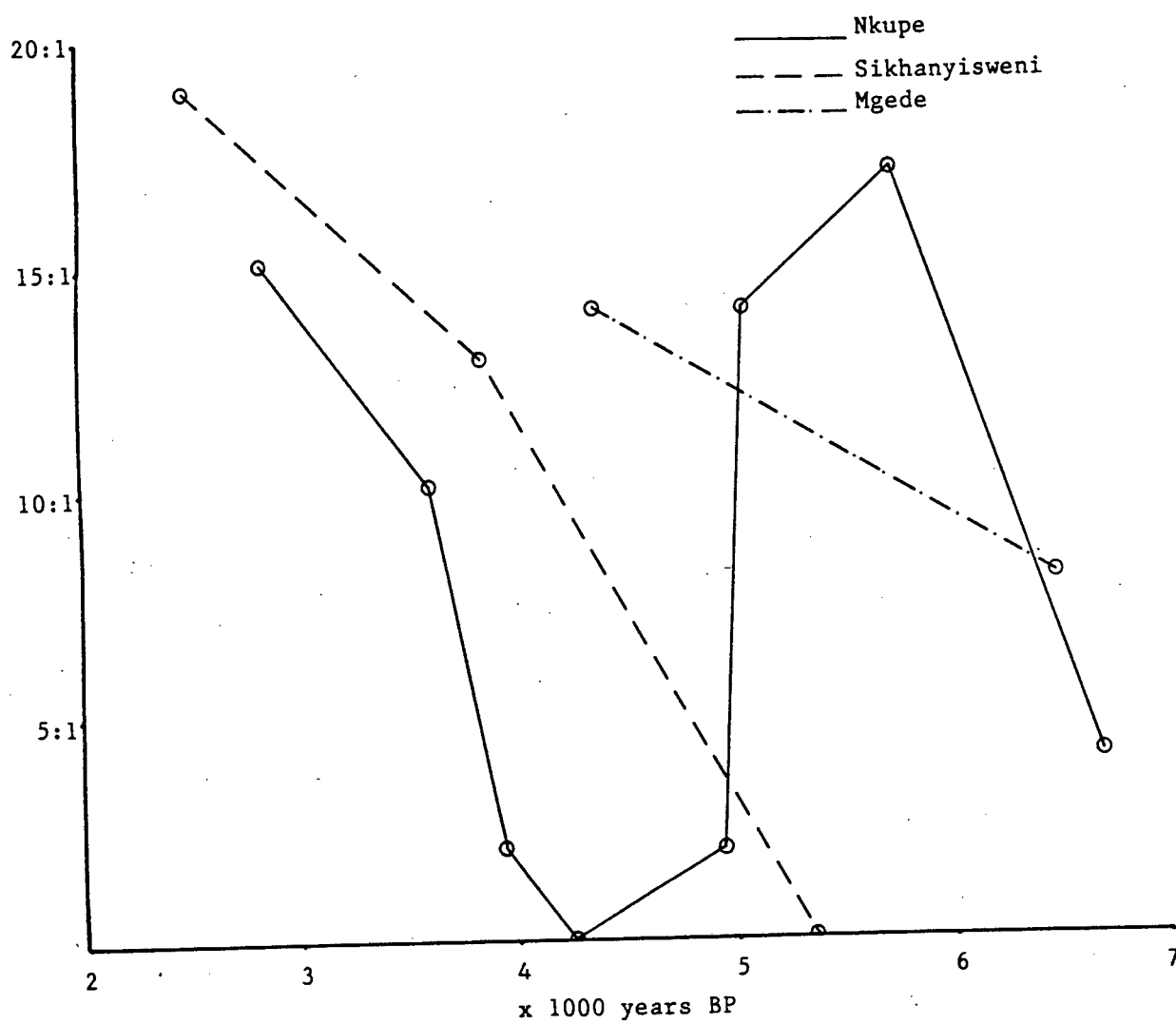


Fig. 5:15. OES bead densities: frequency per volume of deposit.

thereafter but still considerably higher than coeval Nkupe Shelter densities.

The high Sikhanyisweni Shelter OES densities, certainly after 4000 BP, might be linked to the fact that it is the only site to produce evidence of OES bead manufacture, as will be elaborated.

Nkupe Shelter bead densities, though consistently lower than the OES densities, displays a similar chronological patterning, increasing from 6650 to 5760 BP, followed by a drop in proportions and then increasing again after ca 4250 BP (Fig. 5:15). OES beads are better represented at Mgede Shelter than OES pieces, comparing favourably with the Nkupe Shelter and Sikhanyisweni Shelter bead densities. The early Sikhanyisweni Shelter deposits produced no OES beads but they do occur thereafter, in increasing density after 3850 BP, and from about 3500 BP, onwards display similar densities as at Nkupe Shelter.

All three sites produced ochre-stained beads. The Mgede Shelter 4390 BP, Nkupe Shelter 6650 BP and Sikhanyisweni Shelter 3000 - 2000 BP deposits each produced one ochre-stained bead and the Nkupe Shelter 3190 - 2480 BP deposits produced ten. In the latter case, they comprise about a third of the bead assemblage.

As already mentioned, evidence for bead manufacture derived only from the Sikhanyisweni Shelter ca 3000 - 2000 BP deposits, from which two pieces of perforated OES and three incomplete beads were recovered. Of course, the possibility exists that this observation may simply reflect an excavation sampling bias, and that the bead making areas were missed at the other sites. However, I consider it unlikely that, had bead

making occurred at Mgede Shelter and Nkupe Shelter, that absolutely no OES remains showing evidence of this activity would have been recovered. Moreover, the scenario of bead making being exclusive to one group, is not without historical precedent as Bleek and Lloyd's northern Cape hunter-gatherer informants mentioned that only one group in their area was responsible for OES bead manufacture and barter (Deacon, J. 1986).

Ochre

All the sites produced ochre (Fig. 5:16) but the Sikhanyisweni Shelter ca 5500 BP, 3850 BP and 3000-2000 BP assemblages are by far the most prolific, producing 475, 953 and 1267 pieces respectively, representing deposit density ratios of 699, 1201 and 1526. Of the other sites, once again, the 6500 - 7000 BP period displays uniformity across the research area which then gives way to differences. Nkupe Shelter ochre densities fluctuate considerably, increasing to 5760 BP and then decreasing to 4950 BP, but thereafter generally increasing. Gehle Shelter also displays a series of fluctuations, but by ca 4500 BP has a low density. Not all the post-4000 BP deposits south of the Thukela River produced ochre and those that did, contained low densities.

In summary, while the ochre densities following the initial uniformity cut across each other, after 4000 BP a clear separation emerges, with Nkupe Shelter - Sikhanyisweni Shelter - and Diamond 1 and Clarke's Shelter displaying distinct densities.

Ground ochre was recovered from the Mgede Shelter 4390 BP deposits and the Nkupe Shelter ca 5250 BP and 3950 BP deposits.

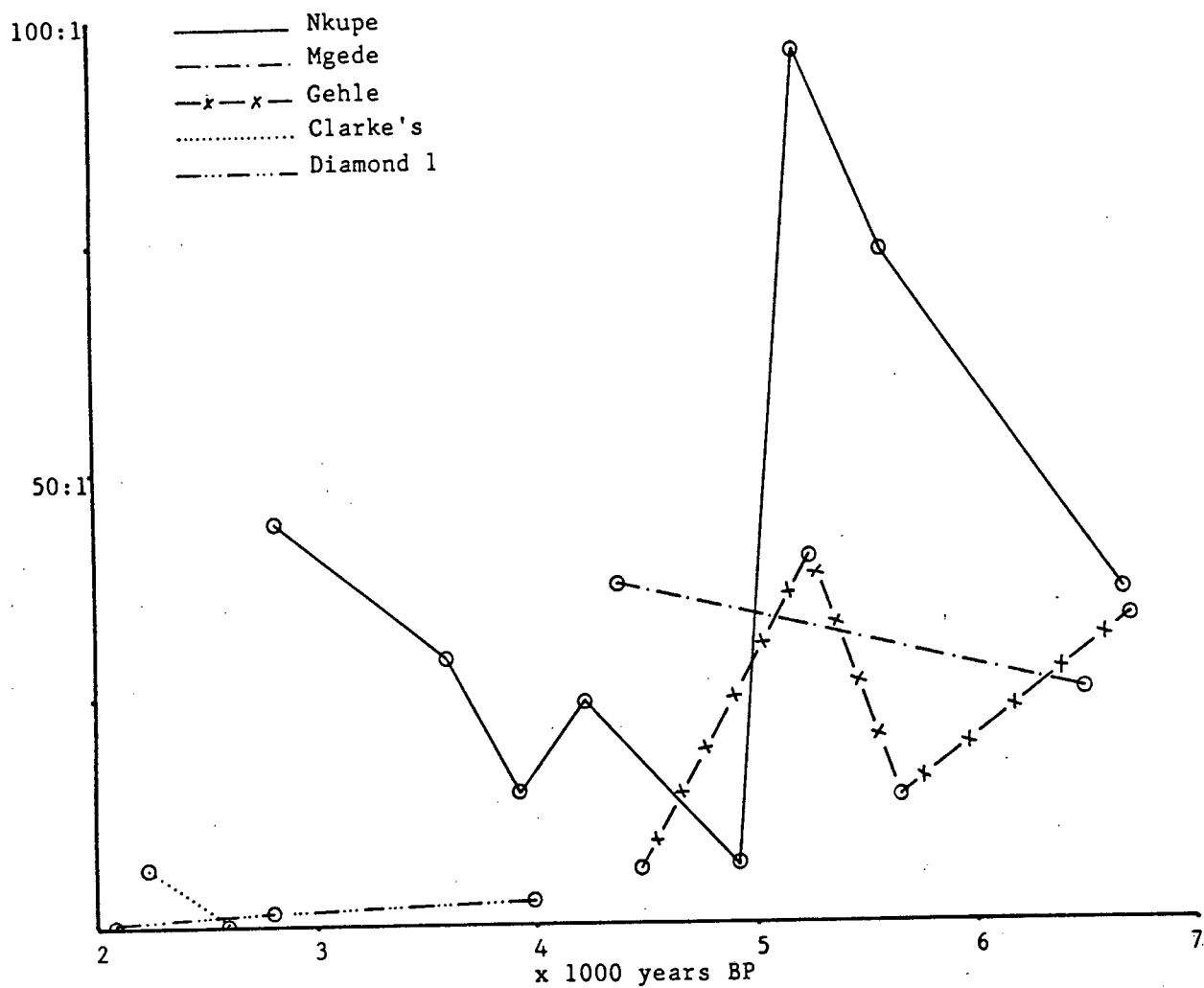


Fig. 5:16. Ochre densities: frequency per volume of deposit.

Other evidence of ochre working derives from ochre-stained stones, one of which was recovered from each of the Nkupe Shelter 6650, ca 5250, 4950, ca 4250 and 3950 BP levels and the Sikhanyisweni ca 3000 - 2000 BP level, and five from the Nkupe Shelter 3190 - 2480 BP level.

Shell

Four pieces of modified shell were recovered from the Nkupe Shelter 6650 BP deposits. Visual inspection cannot reveal with certainty whether these are freshwater or marine mussel (Kilburn pers. comm.). If they are the latter, they would provide concrete evidence of early hunter-gatherer coastal contact with Nkupe Shelter.

DISCUSSION

Three phases of social structural development are recognisable in the Thukela Basin Holocene hunter-gatherer society. During the first phase, 7000 - 6000 BP, the material culture remains from across the research area display considerable uniformity. The following phase reflects some uniformity across the research area but more visible differences begin to emerge. By 4000 BP, however, three distinct social regions are discernible. The evidence to support this scheme will be outlined shortly.

This patterning suggests that the initial hunter-gatherer occupants of the research area maintained a widespread alliance

network which ranged at least from the Nkupe Shelter in the north to Gehle Shelter in the south. Thereafter, the geographical extent of people's interactions was progressively reduced. By 4000 BP, three regions in which the hunter-gatherer communities were able to reproduce themselves socially, biologically and economically had emerged. These developments would have been associated with a growing population. This is suggested by the knowledge that for a social unit to reproduce itself successfully, minimum population levels are required. This will be discussed later. After 4000 BP, three social regions occupied an area which previously functioned as one social region. Independent support for the notion of population growth was provided in Chapter 4 by the occupation density data and inferences drawn from the subsistence patterning.

A similar social trajectory has been proposed for the southern Norway Mesolithic (i.e. 10 000 - 5000 BP). According to Madden (1983), during the initial occupation of this area, the population density was probably quite low and groups would necessarily have maintained a strong network of social and economic links across the entire region. However, because of the vast distances involved and a growing population density, through time a series of differentiated zones emerged.

We now return to the Thukela Basin material cultural record and the evidence for social adjustments. The uniformity that typifies the earliest backed pieces, backed scraper and ground stone assemblages, the scraper, adze and backed piece mean lengths, and the worked bone and ochre density data, suggests a close link between the assemblages across the research area, and

thus, by implication, a close connection between the people responsible for producing them. The raw material data from sites to the north of the Thukela River support this conclusion, by showing a closer link between them and the source area of the CCS than thereafter. If the mussel shells recovered from the Nkupe Shelter 6650 BP level are indeed of marine origin, this would also strongly support the proposition that the early Nkupe Shelter inhabitants were part of an extensive network, which, although perhaps not extending to the coast itself, had some form of coastal contact. The closest coastal point to the Nkupe Shelter is in the vicinity of the Thukela River mouth, which would probably also have been the most accessible point for people travelling between Nkupe Shelter and the coast. No marine shell was recovered from any of the other pre-2000 BP deposits.

The above data strongly support the notion that the research area, excluding perhaps the central Thukela Basin, constituted a single social region during the early period of hunter-gatherer occupation. However, the spatial distribution of OES pieces and beads casts some doubt on this conclusion. No OES whatsoever, occurs south of the Thukela River between 7000 - 2000 BP; except perhaps for a single bead recovered from the surface of Diamond 1, whilst it is relatively common to the north. The literature on the natural distribution of ostriches in Natal and adjacent areas is vague (Clancy 1964; MacClean 1985). The nineteenth century accounts, however, indicate that they were absent in Natal as it was then defined. Anderson (1888) records them as being plentiful near Harrismith. Brooks commented that,

"The ostrich ... is of course well known as the denizen of the high plains of the interior tableland to the north

of Natal. It is only seen for the present in Natal when it makes a passage down to the seaport, as it occasionally does with other travellers" (Brooks 1876:138).

Thus, ostriches probably never lived in the immediate vicinity of any of the sites, but were closest to Nkupe Shelter and Mgede Shelter.

Although the absence of OES south of the Thukela River throws some doubt on viewing a large part of the research area as a single social region during the early phase of its Holocene hunter-gatherer occupation, the depth and uniformity of the rest of material cultural data supercedes it. No obvious explanation exists for the absence of OES south of the Thukela River during this time, but it is the subject of ongoing research.

The 6000 to 4500/4000 BP period appears to represent a period of flux during which the initial widespread social region disintegrated, and was replaced by three discrete social regions. This transformation period is characterised by some material cultural elements reflecting uniformity between geographically dispersed sites while others are clearly beginning to diverge. Examples of uniformity include the more or less contemporary appearance of Type 1 backed scrapers at Gehle Shelter and Nkupe Shelter shortly after 6000 BP, consistent adze mean lengths and ground stone and ochre densities. However, the composition of the backed piece, backed scraper and worked bone assemblages and the scraper mean length, display divergence, and, as before, OES pieces and beads are absent south of the Thukela River. The comparatively high overall CCS proportions lasted at Nkupe Shelter until ca 4250 BP. At Mgede Shelter there is a drop in

overall CCS proportions between 6550 and 4390 BP but we are unable to say what followed, as the occupation of this site was curtailed. Contrasting subsistence strategies also emerge during this time, with Nkupe Shelter and Mgede Shelter displaying signs of greater intensification than the other sites. Part of this process includes the appearance of fishing at both sites immediately before 4000 BP.

Some of the 6000 - 4500/4000 BP phenomena are not explicable within the proposed social region scenario. In particular, I am referring to the pronounced decrease in the Nkupe Shelter hornfels scraper lengths (Fig. 5:6), the fluctuating Nkupe Shelter ochre densities (Fig. 5:16), and the marked increase in Nkupe Shelter ca 5250 and 4590 BP worked bone densities (Fig. 5:12). No satisfactory explanation(s) exist for these phenomena. While these inconsistencies certainly raise some doubts about the proposed social region scenario, as with the absence of 7000 - 4000 BP OES south of the Thukela River, they are not considered of sufficient strength to warrant its overall rejection.

It is impossible to pinpoint when exactly before 4000 BP the regions were established as discrete and independent entities, but by 4000 BP they are discernible in the archaeological record. The social regions are not totally consistent in their material cultural composition, but it is submitted that sufficient similarity typifies the sites within each region to warrant their grouping. This becomes especially evident when comparing the different social regions. It is possible that between 4000 - 2000 BP, further social structural

developments occurred, perhaps even the formative development of new social regions. We cannot comment on this possibility north of the Thukela River, as after 4000 BP both the social regions are represented by only one site. To the south, however, where more sites are represented, evidence of this is not forthcoming.

Before describing the features which distinguish the social regions, I illustrate and discuss their hypothetical geographical distributions (Fig. 5:17). In addition, I investigate the potential of these social regions to have sustained viable hunter-gatherer populations. The region which includes Nkupe Shelter and Mgede Shelter will be known as Ndaka after the major river in the general area. The region to the south of the Thukela River will be called Injasuthi after one of the main rivers that drains it. This region also includes the area around Diamond 1 which is about five kilometres north of the Thukela River. The region which incorporates Sikhanyisweni Shelter and Nqutu Shelter (Davies 1952) will be known as Toleni after the river on which the former site is situated. Research on the Nqutu Shelter is published in insufficient detail to enable meaningful comparison with the other sites, but as with Sikhanyisweni Shelter, it appears to be rich in OES and ground stone (Davies 1952).

These regions' geographical definitions require some clarification. Excavations at Hamburg Shelter, roughly 35 km south of Nkupe Shelter, produced less than 10 stone artefacts in a trial one metre square excavation which was almost one metre deep. At Manzimani Shelter, which is 25 km north of the Thukela River and 70 km south west of Nkupe Shelter, the deposit was

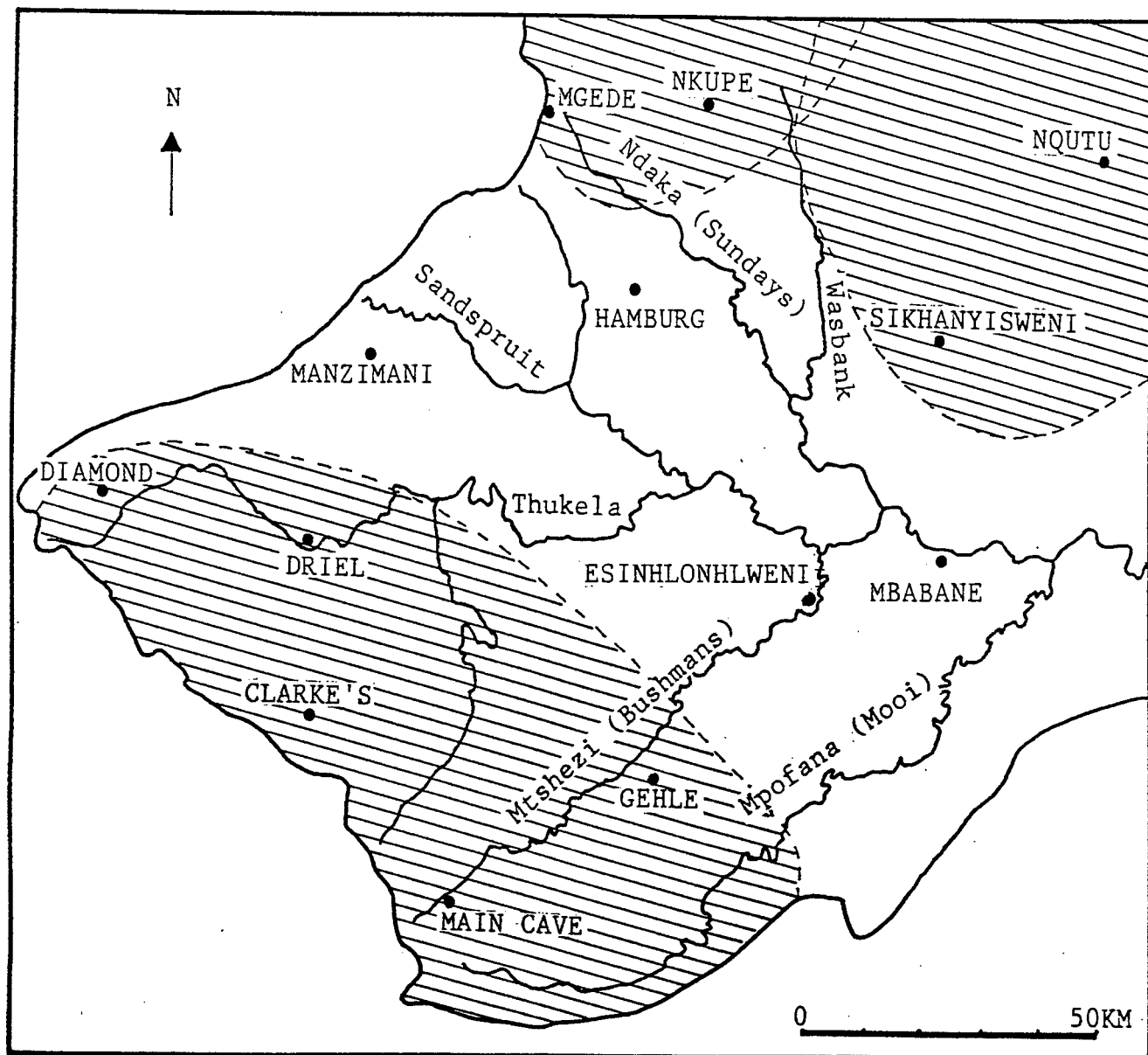


Fig. 5:17 The hypothetical distribution of the Ndaka, Toleni and Injasuthi social regions. The Ndaka and Toleni social regions are represented by their hypothesised southern boundaries - the area to the north did not form part of the research area.

sterile. A survey of the immediate vicinity of Manzimani Shelter revealed another nine habitable rock shelters, but none of these showed signs of occupation. A small scatter of artefacts was found around a spring about 12 km south east of Manzimani Shelter. Close to this site there is a small painted rock shelter. However, there is no knowing whether these sites predate 2000 BP. Though a more comprehensive survey of the area surrounding Manzimani Shelter is required, it would appear that this area was ephemerally occupied by hunter-gatherers, if it was occupied at all. The above criteria were instrumental in deciding against extending the Ndaka social region further to the south.

As mentioned in Chapter 4, no deposits dated to before 2000 BP were uncovered at either Mbabane Shelter or eSinhlonhlweni Shelter in the central Thukela Basin. Consequently, the Injasuthi social region has not been extended into this area. The Thukela Basin boundary has been taken as the southern limit of this social region, which covers some 5700 sq km and thus, in size, falls between the northern Cape Flat and Grass 'Bushmen' territories which are roughly 4500 and 8400 sq km respectively (Deacon, J. 1986).

The Toleni and Ndaka regions may have overlapped, as is shown in Fig. 5:17. But, as will be submitted later in this chapter, even though Nkupe Shelter (Ndaka) and Sikhanyisweni Shelter (Toleni) display much greater similarities with each other than either do with sites in the Injasuthi region, they are sufficiently different to justify viewing them as belonging to distinct social regions.

Hassan (1981) listed the population densities of some extant hunter-gatherer groups. If the South Australian Aborigines (0,01 persons/km²), Kalahari San (0,06), Hadza (0,15), and Pygmy (0,77) population densities are divided by the size of the Injasuthi social region, this gives populations of 57, 342, 855 and 4389, respectively. In a simulation study, Wobst (1974) concluded that the minimum number of people needed to sustain a breeding population was between 175 and 475. Williams (1974) suggested that hunter-gatherer mating networks would involve between 210 and 1275 people and Ammerman (1975) noted that most geographically contained hunter-gatherer populations probably fall in the range of between about 300 and 2000 people. The !Kung and !Xo marriage pools contain about 350 people and 275 people respectively (Wiessner 1983). There seems to be general agreement that minimum populations of between 175 and 350 people are sufficient to sustain hunter-gatherer breeding networks.

The Injasuthi social region would therefore have required a population density of between 0,01 and 0,06 persons/km², namely that of the South Australian Aborigines and the Kalahari San respectively, to ensure a viable breeding population. From the resource data presented in Chapter 4, and given the existing technology, it is arguable that this region would have been able to sustain population densities encountered amongst the Kalahari San, and perhaps even the Hadza. It is thus submitted, that by the formation of the Injasuthi, Ndaka and Toleni social regions, population density was sufficient to ensure social and biological reproduction within the regions.

The Ndaka, Toleni and Injasuthi social regions are distinguishable by a variety of features which encompass the criteria outlined for recognising discrete social entities, namely the material cultural items a group carry and distribute, idiosyncratic style and subsistence strategies. However, before describing how these regions differ, the internal consistency of the Ndaka and Injasuthi social regions, which at times contain more than one site, is discussed.

The Ndaka social region comprises Nkupe Shelter and Mgede Shelter during its formative period and/or early existence but thereafter only Nkupe Shelter. Comparison of the Mgede Shelter 4390 BP and roughly contemporary Nkupe Shelter material cultural assemblages, shows that they display comparable adze mean lengths and that while the overall composition of their worked bone assemblages are different, only they produced mini-points and fish hooks. Moreover, ground ochre was only recovered from Mgede Shelter and Nkupe Shelter. Both Mgede Shelter and Nkupe Shelter display a decrease in overall CCS proportions, but clearly overall CCS proportions at Mgede Shelter are greater than at Nkupe Shelter. The Nkupe Shelter scraper mean lengths and worked bone and ochre densities showed marked fluctuations during the period not represented at Mgede Shelter, 6550 to 4390 BP. As mentioned earlier, these phenomena are not presently explicable within the social region scenario, and thus do introduce an element of inconsistency into this scheme. The Mgede Shelter backed piece and backed scraper assemblages are too small to allow for meaningful comparison. The Nkupe Shelter and Mgede Shelter ca 4400 BP deposits also display similar subsistence

practices.

Although placing Nkupe Shelter and Mgede Shelter into one social region is by no means clearcut, it is tentatively submitted that they display sufficient similarities to view them as interlinked. This is in view of the fact, that the period immediately before 4000 BP probably represents an early stage in the life of the Ndaka social region. Clearly though, more mid-Holocene observations in this area are required to support this conclusion.

The Injasuthi sites exhibit greater consistency than the Ndaka sites. OES pieces and beads, and ground stones are absent in this social region. Furthermore, the similarity between the ca 4500/4000 BP Gehle Shelter and Diamond 1 backed piece and backed scraper assemblages, adze and scraper mean lengths and ochre densities has already been highlighted. Thereafter Diamond 1 and Clarke's Shelter display uniformity, as is evidenced by their scraper and adze mean lengths, worked bone and ochre densities and raw material patterning. The comparison of the Diamond 1 and Clarke's Shelter backed pieces and backed scrapers is precluded by the inadequate Clarke's Shelter assemblages.

The Injasuthi social region is distinguished from the Ndaka and Toleni regions by the absence of OES pieces and beads, ground stones and segments (save one specimen from the early Diamond 1 deposits), the extremely low worked bone densities or absence thereof (excluding the Gehle Shelter assemblage), the low ochre densities, as well as the contrasting backed scraper assemblages. Furthermore, the Injasuthi region produced no evidence of ochre utilisation whereas ochre-stained stones were

recovered from the other regions. The adze and scraper mean length discrepancies between Injasuthi and the other regions are probably largely conditioned by raw material differences, namely CCS in the Injasuthi region and hornfels in the others. However, some doubt was expressed earlier as to whether this was entirely the case, as CCS scraper and adze mean lengths, greater than their hornfels equivalents, are known during the Thukela Basin 7000 - 2000 BP period. Economic variation also serves to distinguish the Injasuthi region. The Ndaka region appears to have experienced greater intensification than the Injasuthi region. The Toleni and Injasuthi regions appear on the whole to display similar levels of intensification, but an important distinguishing criterion is the presence of fish remains at Sikhanyisweni Shelter.

Although Nkupe Shelter (Ndaka social region) and Sikhanyisweni Shelter (Toleni social region) are only about 35 km apart and display greater similarity than either does with the Injasuthi region, they are arguably sufficiently diverse to warrant classification into separate social regions. I suggest that these differences are more substantial than what one would anticipate from different stations within one social region.

While their OES bead densities are comparable, Sikhanyisweni Shelter produced markedly greater OES piece densities. Moreover, evidence for bead manufacture derives from only the Sikhanyisweni Shelter ca 3000 - 2000 BP deposits. This is especially significant in view of Bleek and Lloyd's northern Cape informant's comment that only one group in their general area made and bartered OES beads (Deacon, J. 1986).

The Sikhanyisweni Shelter scraper and adze mean lengths are significantly greater than their Nkupe Shelter counterparts. Sikhanyisweni Shelter also produced considerably larger ochre densities, which may have been caused by its abundant local availability. Ochre-stained stones were recovered from both sites, but Sikhanyisweni Shelter reflected considerably greater ground stone densities. These sites also contained contrasting worked bone densities and overall assemblage compositions. Differences also typify the backed pieces and backed scraper assemblages, but in terms of raw material usage, both sites contained only hornfels adzes, except for two adzes at Nkupe Shelter, and CCS was used for scrapers and especially backed pieces in greater proportions than their overall representation. Finally, it would appear that these sites experienced dissimilar intensification levels, but absolute certainty of this would require the excavation of deposits with favourable organic preservation in the vicinity of Sikhanyisweni Shelter.

Thus, as remarked, some similarity does typify these sites but overall, they show sufficient differences stylistically, and in terms of the items people carry and distribute and possibly subsistence strategies they exhibit, to justify viewing them as belonging to distinct social regions.

In summary then, the available material culture and subsistence evidence suggests that three distinct hunter-gatherer social regions emerged in the Thukela Basin before 4000 BP and then continued through to 2000 BP. Of these, the Ndaka region displays the greatest intensity and variety of material culture

remains. No doubt, as more research is conducted, the somewhat arbitrary boundaries will be altered and regions might have to be redrawn. Nevertheless, I proceed on what appears most likely on the available data. The implications of the structural changes that characterise the Thukela Basin Holocene hunter-gatherer society will be considered in greater detail in the following chapter.

Beyond the spatial patterning that typified the Thukela Basin material culture remains, it would appear that the sites north of the Thukela River also experienced a temporal patterning of their non-lithic cultural remains. There is a suggestion of a comparable temporal patterning in some aspects of the Gehle Shelter lithic remains. This will be discussed in the following chapter. Otherwise, no similar temporal patterning occurs south of the Thukela River. The northern Thukela Basin patterning will be outlined here, but the implications thereof will be dealt with in the following chapter.

Between around 7000 and 5000 BP at Nkupe Shelter, items such as OES pieces and beads, ochre and mini-points are prevalent. Low OES piece and bead and ochre densities characterise the Nkupe Shelter 5000 - 4000 BP period but mini-points are present in increased quantities and there are the additional items of bone rings and a ground stone ring. The 4390 BP Mgede Shelter deposits produced OES pieces and beads, ground ochre and mini-points. An ochre-stained bead was recovered from each of the Nkupe Shelter 6650 BP and Mgede Shelter 4390 BP levels. While the Ndaka region 7000 - 4000 BP period appears to have been rich in non-lithic cultural items, the 4000 - 3000 BP

period at Nkupe Shelter as well as Sikhanyisweni Shelter (excluding OES piece densities) appears to be poorly endowed. OES bead and ochre densities at Nkupe Shelter are comparatively low and no OES pieces were recovered at all. At about 3000 BP, however, the situation was reversed and there was a marked increase in the intensity of cultural items. Nkupe Shelter displays an increase in OES piece and bead and ochre densities as well as a marked rise in the number of ochre-stained stones. Moreover, ochre-stained beads reappear. The only ochre-stained stone and bead at Sikhanyisweni Shelter were recovered from the ca 3000 - 2000 BP deposits. It was also during this time that OES beads were being manufactured at this site.

How do these non-lithic material cultural changes just outlined correspond with the suggested structural development of Thukela Basin hunter-gatherer society? It would appear that the period of the initial widespread social region and the formative stages of the Ndaka, Toleni and Injasuthi social regions (i.e. from about 7000 - 4000 BP) reflect a rich material cultural phase. In the following period (i.e. 4000 - 3000 BP) when the social regions were arguably well established, the material cultural record is poorly endowed. Thereafter, however, and when the social regions were structurally probably more or less the same as before, the material cultural assemblages flourished. The possible reasons for this chronological patterning of the material cultural remains will be explored in the following chapter.

CHAPTER 6

PEOPLE MAKING HISTORY: THE INITIAL OCCUPATION OF THE CENTRAL
AND UPPER THUKELA BASIN AND THE 7000 - 2000 BP SOCIAL RELATIONS

In the previous two chapters I investigated aspects of the forces of production and social relations of production. Chapter 4 dealt with the Holocene peopling of the research area, habitation density and subsistence adjustments, while Chapter 5 dealt primarily with social structural changes but also began focusing on other features of the social relations of production. In these chapters as well as in Chapter 3, I submitted that changes in the productive forces would have been precipitated by social restructuring. In this chapter, these social changes are explored. In essence, I will propose that a gender related struggle was the primary component informing the historical development of Thukela Basin hunter-gatherer society. More particularly, that during the initial stages of their occupation of the research area, the male-female relationship was typified by male dominance and that this relationship was thereafter the site of considerable struggle. It will be proposed that women, primarily through their increasing subsistence contribution and control of their food production, were able to enhance their political and economic power and thereby redress the overall balance of power.

Before continuing, we need to be reminded of the

discussion in Chapter 3, where it was argued that other types of social relations changes which may have occurred in hunter-gatherer societies, such as conflicts between age groups (Lourandos 1985a) and within and between lineages (Bender 1985a) are not believed to have typified the Thukela Basin society under study. I submitted that these phenomena would only emerge in hunter-gatherer societies which are considerably more complex than the Thukela Basin society, and which also show evidence of social differentiation between males themselves, which is not the case in this study. I also raised the possibility in Chapter 3 of Thukela Basin women losing power through time, as Cucchiari (1981) has argued for the European Palaeolithic. However, I discounted this possibility for Thukela Basin hunter-gatherer society, because as mentioned before, available evidence, which is to be presented in this chapter, suggests the opposite, i.e. women after occupying a position of low status enhanced their political and social position.

Before considering the central theme of this chapter (i.e. changing social relations), some of the theoretical propositions underpinning this study are recapped, and the terminal Pleistocene - ca 7000 BP period is discussed.

Although some of the theoretical propositions presented below might appear axiomatic, they are restated here in view of the criticisms of South African LSA archaeology presented in Chapters 2 and 3.

1. Social production and reproduction are the bases of human society.

2. Human society is dynamic in nature. This dynamism arises from society's contradictions and tensions, which are rooted in the notion of the dialectic.
3. As social reproduction and the production of human subsistence constitute the foundation of society, the social relations of production and the forces of production (i.e. the base) are the determinant conditions in society. Consequently, the basic movement of history is contained in the dialectical development of the forces of production and social relations of production.
4. The link between the superstructure and the base in the social system is established through the concept of reproduction.
5. A dialectical unity exists between the social relations of production and forces of production, but the social relations of production are ultimately determinant.
6. Within the dialectical relationship between the forces of production and social relations of production, the forces of production, as well as the environment, are regarded as constraining forces, i.e. negatively determinant.
7. No understanding of social change can be analytically separated from technological change. Technology cannot be regarded as an independent variable with its own momentum and thus unconnected to the internal workings of society.

EARLY HOLOCENE SETTLEMENT OF THE CENTRAL AND UPPER THUKELA BASIN

Little is known about the early Holocene Thukela Basin hunter-gatherer settlement. This, however, probably reflects

more the absence, or ephemeral nature, of this settlement than the lack of archaeological research. A study of twenty rock shelters and 10 open-air sites in the research area have revealed that only one site, Sikhanyisweni Shelter, was occupied before 7000 BP. Other areas of Natal were occupied during the terminal Pleistocene and early Holocene. Evidence of terminal Pleistocene occupation derives from the coastal region near Durban and Pietermaritzburg further inland, and evidence of early Holocene occupation derives from these regions, the southern Natal highlands and east Griqualand.

Existing data tends to suggest the lowlands south of the Thukela Basin as the source area of the Thukela Basin hunter-gatherers. However, as the Thukela Basin lower altitudes and regions to the north and east of the research area have not been surveyed, they cannot be ruled out. The general cultural and economic uniformity that typifies the early hunter-gatherer communities throughout the research area suggests that they derived from a common source. If the shells recovered from the Nkupe Shelter 6650 BP deposits are indeed of marine origin, this would suggest a coastal, or near coastal, source.

Why was the research area not occupied during the terminal Pleistocene, and then probably only ephemerally during the early Holocene? The lack of human occupation of the research area may date to much earlier than the terminal Pleistocene. Evidence of Middle Stone Age (MSA) occupation exists, but we cannot say how old it is, other than that it probably does not postdate 25 000 BP. No evidence exists for an early LSA occupation. It is likely that the cold, harsh

environment which enveloped the subcontinent between 26 000 - 15 000 BP (Deacon, H.J. 1983; Deacon, H.J. & Thackeray, J.F. 1984) played a significant role in discouraging people from occupying the central and upper Thukela Basin. We can argue that food resources may have been diminished to the point where people considered this area unsuitable for habitation. Climatic amelioration began after about 17 000 BP (Deacon, H.J. & J. 1986) and it was during the terminal Pleistocene/early Holocene period that modern habitats emerged (Deacon, H.J. & Thackeray, J.F. 1984). Hunter-gatherers occupied the research area either during or soon after the emergence of these modern habitats.

It would be simplistic, on the basis of this correspondence, to conclude that people began occupying the research area simply because of the emergence of modern environments around 10 000 years ago. Firstly, there is the issue of timing. Could it not be that suitable conditions for habitation existed in the research area before it was occupied? This question may never be satisfactorily answered, as the notion of what constitutes 'suitable conditions' will vary enormously, depending on a society's specific situation.

Another serious problem confronting this type of explanation, concerns our theoretical understanding of the relationship between humans and the environment. In Chapter 3, it was proposed that the environment acts as a constraining force. In other words, it is a negative determining force - it 'tells' people what they cannot do, but not what they should do. Thus, when the environment was such that subsistence resources were severely depleted, people were either unable or chose not to

occupy this area. However, it does not automatically follow that an area would be immediately reoccupied once it was able to support a viable population. To fully comprehend the early Holocene movement of people into the research area, the conditions in their ancestral home need to be researched with a view to explaining why they chose to move. People will not move simply because there is a place for them to occupy. An analogous situation would be the European peopling of the Cape. Portuguese explorers arrived at the Cape in the late fifteenth century but this did not automatically lead to European settlement. It was only colonised by the Dutch in the mid-seventeenth century when conditions in Holland precipitated it.

Thus, while the post 17 000 BP amelioration of the subcontinental climates probably created the necessary conditions for the occupation of the research area, it does not explain why people chose to occupy this area during the early Holocene. Reasons for this will have to be provided by more extensive research in the potential source areas of the Thukela Basin hunter-gatherers. This must be regarded as an important aspect for future research. Meanwhile, possible clues might be provided by current research at Umhlatuzana Rockshelter, which dates to the terminal Pleistocene and probably early Holocene (Kaplan pers. comm.)

THE ARTICULATION OF THE CHANGING SOCIAL RELATIONS OF PRODUCTION
AND FORCES OF PRODUCTION 7000 - 2000 BP

In Chapter 5, it was proposed that three phases typify the social structural development of Thukela Basin 7000 - 2000 BP society. During the initial phase, almost the entire research area comprised one social region. This was followed by the fragmentation of this region, and then, sometime before 4000 BP, the formation of three social regions which lasted until at least 2000 BP. It was also illustrated how the intensity of hxaro exchange type items at sites north of the Thukela River correlated with these developments. During the first two phases a high density of non-lithic material culture was reflected. The third phase was typified by two stages; the period from 4000 to 3000 BP displays a low intensity of items and this was reversed in the following thousand years when significant increases in the intensity of items occurred.

Viewed against the subsistence strategies, the first phase appears to correspond with a diet relatively high in bovids and thus lean meat and protein (see later discussion) and the beginning of intensive plant food exploitation. During the second phase, the proportion of lean meat, though decreasing, was probably still comparatively high and plant foods, especially fruits, were being increasingly exploited. After 4000 BP, and thus during the third phase, fruits and underground plant foods assumed even greater significance and the lean meat contribution decreases even further. Fish began to be exploited north of the Thukela River in about 4000 BP. The Nkupe Shelter data indicate increased emphasis on microfauna, especially between ca 4250 and 3500 BP. Throughout the 7000 - 2000 BP period there was a general increased emphasis on smaller macrofauna (i.e. dassies

and hares).

It was also submitted in Chapters 4 and 5 that this period experienced population growth, with the initial phase reflecting a sparse population. The initial population was, of course, of pioneering stock.

SOCIAL RELATIONS IN EARLY HOLOCENE THUKELA BASIN HUNTER-GATHERER SOCIETY

The rest of this chapter is devoted to constructing a scenario that will explain the changes described above. The historical development of 7000 - 2000 BP hunter-gatherer society is viewed as being primarily informed by social struggles. Considering the environmental influence on this historical development, it would appear that the period up to about 3000 BP was typified by dry and open conditions and thereafter more moist and more closed conditions ensued (Chapter 1). Thus, it would seem that the social and economic changes up to at least 3000 BP occurred within a stable environmental setting. It is difficult to assess the impact that the ca 3000 BP changing environmental conditions had on Thukela Basin society. However, the 3000 - 2000 BP changes in the archaeological record can be viewed as the continuation of the previous social and economic trajectory. And they are explicable within the framework developed to explain the previous period.

The first phase of hunter-gatherer occupation of the research area is typified by a pioneering society, of low

population density. This society's social and biological reproduction probably hinged on the maintenance of an extensive alliance network stretching across a large portion of research area. Furthermore, it is proposed that their diet comprised a relatively high proportion of lean meat. In the ensuing discussion it will be submitted that this society experienced considerable economic, nutritional, demographic and social stress, and that these coupled with related factors encouraged an unequal gender relationship in which men were dominant.

As hunting is generally an unpredictable, unproductive and risky affair, it will produce stress in a society which relies heavily on hunted food. Lee (1979) monitored !Kung hunting over a 28 day period in 1964. He reported that the hunting success rate (i.e. percent of hunting days on which kills were made) varied from 0% to 38%, averaging 23%. Thus, on average, one kill was made every four hunting days. Assuming that this, or a similar, average characterised early Thukela Basin society in which meat probably constituted a high proportion of the diet, the hunters would have been under considerable pressure to improve their success rate and/or work substantially harder. This would, no doubt, have put the hunters, whom it has been argued would have contributed a larger proportion of the diet during the earlier period than thereafter, under considerable strain.

The risks involved in hunting would have exacerbated this tension. Howell (1979:54-57) noted these risks for the !Kung, such as unprovoked attacks by animals and accidents with poisoned arrows. It is likely that Thukela Basin hunters would also have

experienced these. Comparing the risk involved between hunting and gathering Howell concluded, "It is interesting to note that gathering, as opposed to hunting, does not seem to be a highly risky business" (Howell 1979:57).

Associated with, and indeed adding to, the stress generated by an emphasis on hunting, would have been the nutritional problems caused by high lean meat diets. While high protein and low carbohydrate diets were previously considered to be optimal, it would now appear that, in fact, the reverse is true (Diener et al 1980-1; Speth & Spielman 1983). Indeed, Diener et al (1980-81) commented, in spite of claims by some researchers, that under 'crisis' conditions such as disease, animal protein is 'adaptive', current evidence indicates that high animal protein diets are more harmful than beneficial. Speth & Spielman (1983) also noted that hunters were aware of the detrimental effects of a high lean meat diet, and when possible, discarded lean animals for fatter ones, even during food shortages. This problem would have been exacerbated in winter and early spring when the animals themselves are in poor condition and have low fat reserves.

Nevertheless, it has been inferred from the food residue and lithic artefact data presented in Chapter 4, that lean meat comprised a ~~higher~~ proportion of the early Holocene Thukela Basin hunter-gatherer diet than thereafter. We do not know what proportion of the diet lean meat comprised, but let us consider some possibilities and their implications.

There is no specific and reliable data on the maximum amount of protein humans can tolerate, nor on the maximum amount

of human energy needs that protein can provide, without harmful consequences. In terms of human energy needs, it would seem that 10-15% protein is adequate. Cahill (1986), citing the work of Eaton & Konner (1985) and Robson and colleagues (1977), mentions however, that protein would have supplied 25-34% of the total energy in hunter-gatherer diets. Cahill (1986) also mentions that certain social groups (e.g. Texas bankers and Argentinian gauchos) may surpass this number. Noli comments further that, "It thus seems that, although it would be possible [for humans] to satisfy 50% of their energy needs with protein, they chose to limit themselves to a far lower figure" (Noli 1986:5). Almost immediately after this statement, however, Noli cites Cheremin's (1985) research which supposedly indicates that "as little as 26% of human energy needs being derived from protein could lead to hyperazotemia and surpassed physiologic thresholds of urea and ammonia content in blood serum" (Noli 1986:5). As Noli's (1986) account of Cheremin's (1985) research conclusions is based on a half translated paper (Parkington pers. comm.), it should be treated somewhat cautiously.

While Noli's (1986) suggestion, based on Cheremin's (1985) paper, that as little as 26% of human energy needs being derived from protein can have fatal consequences may be exaggerated, it seems equally unlikely, as Speth & Spielman (1983) have proposed, that people would have been able to subsist for any length of time on a primarily lean meat diet. More clarity is required on this subject, and I thus echo Noli's (1986) call for more specific research. Despite these uncertainties, all recent commentators agree that high protein

diets are detrimental and can cause serious medical problems. These problems are well documented in the literature (e.g. "Dietary protein ..." 1982; Diener *et al* 1980-1; Eckstein 1980; "High protein ..." 1981; McClellan *et al* 1931; Speth & Spielman 1983; Whitney & Hamilton 1984; Worthington-Roberts 1981).

Returning to the early Thukela Basin hunter-gatherers, it is suggested on the basis of the archaeological record (see Chapter 4) and the above discussion, that they had a comparatively high protein diet, perhaps comprising as much as 35-40% of their total energy needs. The remaining 60-65% would have been supplied by fats and carbohydrates, and these are investigated next.

Southern African bovids, in particular the small and small/medium types which dominate all but two of the Thukela Basin macrofaunal assemblages, are poor in fat. The fat proportions of wildebeest and impala are 0,8%-6,4% and 0,5%-4,7% respectively (Ledger 1968; Smith, N.S. 1970). The average annual body fat/lean meat ratio of the following bovids has been given as, eland 2,4/100, wildebeest 2,3/100, gemsbok 1,9/100, springbok 1,7/100, blesbok 1,7/100 and impala 1,3/100 (Von la Chevallerie 1972). Moreover, reedbuck and eland research in the Natal highlands (Howard 1984; Keep 1972) shows that during winter and early spring these animals experience nutritional stress and their fat reserves are depleted. It is also during this time that a disproportionate number of natural reedbuck deaths occur (Howard 1984).

The fragmentary nature of the bones from the lower Nkupe

Shelter deposits suggests that the hunter-gatherer occupants were going to great lengths to extract bone marrow, which comprises about 90% fat (Nel pers. comm.). Fat would also have been obtainable from a variety of insects which would be archaeologically invisible. It would seem that fried termites are particularly rich in fat. In fact, fat comprises between 35 and 45% of fried termites and living termites contain just under 30% fat (Bodenheimer 1951). Other insects, for example caterpillars, locusts (sun dried) and silkworm (pupae), may also have been exploited for their fat. These insects comprise between 13 and 20% fat (Bodenheimer 1951).

Experiments have shown that fat can provide up to 75% of human energy needs over an extended period, with no apparent physiological side effects (McClellan et al 1931). However, it is unlikely, that fat would have comprised anywhere near that proportion of the early Thukela Basin hunter-gatherer's diet, a figure of 10-20% is more likely.

Carbohydrates would have supplied the rest of the diet. Nel (pers. comm.) informs me that carbohydrates are available from animal gut. McClennan et al, who conducted experiments on the effect of prolonged lean meat and fat diets on humans, concluded that "Theoretically 7,75 gm of glucose were obtained per hour from ... protein metabolism" (McClennan et al 1931:427). The basic unit of carbohydrates is the glucose molecule (Cahill 1986). Insects would also have provided carbohydrates. For example, caterpillars comprise about 15% carbohydrates and some locusts comprise between 6 and 10% carbohydrates (Bodenheimer 1951). Honey would have been an

important source of carbohydrate. Bodenheimer commented on the goodness of honey that, "There is perhaps no other food, excluding stimulating drugs, comparable to honey for the prevention of fatigue or for the restoration of strength after thorough physical exhaustion" (Bodenheimer 1951:35). Although carbohydrates might have been derived from animals, insects and honey it is likely that most of the carbohydrates would have been supplied by plant foods (especially fruits and berries).

In summary, besides being an unpredictable and generally unproductive pursuit, hunting would also have involved personal risk. Moreover, diets high in lean meat (i.e. high in protein) would have caused nutritional stress, which, in turn, would have served to further exacerbate social tensions.

In addition to economic and nutritional stress, I submit that the early Holocene Thukela Basin people would have experienced considerable stress related to social and biological reproduction. In Chapter 5, I proposed that the Thukela Basin social regions were the geographical manifestations of alliance and mating networks, and furthermore, that in this sense they approximate the !Kung hxaro alliance networks. Differing explanations have been submitted for the hxaro networks (Cashdan 1985; Wiessner 1977, 1982). These cast some doubt on what I am proposing, and I therefore evaluate them.

The hxaro network is a system of mutual reciprocity through which people create ties with each other. The established relationships involve a balanced, delayed exchange of gifts, whose regular flow provides both partners with information about the underlying status of the relationship (Wiessner 1982).

This alliance system is viewed by Wiessner (1977, 1982) and Cashdan (1985) as primarily a means of economic risk reduction, or, in other words, social insurance against anticipated future subsistence shortages. This explanation "hinges on the assumption that the population which pools risk is diverse enough to absorb the losses of any member" (Wiessner 1982:65).

Wiessner's analysis relies on historical materialist concepts, such as social relations of production. In addition, she believes that the effects of the hxaro alliance on !Kung economics cannot be predicted from environmental variables alone. Despite these materialist leanings, however, the central concept underlying her analysis is that humans are ultimately driven by economic considerations. Thus, even though she acknowledges that the nature of the hxaro system cannot be predicted simply by recourse to the environment, the reason for its existence is seen as an insurance against environmental fluctuations. Ultimately, the socially integrative functions of hxaro are viewed as epiphenomena to economic considerations.

There is no doubt that economic concerns are of vital significance to hunter-gatherers. However, in accordance with the theoretical stance taken in this study and, as will be shown, observations on !Kung society, I suggest that the ultimate function of the hxaro type networks is not economic, but social. I propose that these networks serve as a mechanism to ensure social production and reproduction, with one of its primary aims to ensure that people find marriage partners. A positive component of the alliance system is the stimulation of economic co-operation. As Wobst remarked,

'Mate recruitment is made possible by, and itself stimulates, integrative processes between the different minimum bands and their members. The integrative processes, in turn, enhance the chance of survival of the minimum bands and their members. Thus, food sharing and visiting between adjacent bands create an atmosphere conducive to the exchange of mates' (Wobst 1974:152).

Evidence from Wiessner's and other observations support the notion that the hxaro alliance system functioned primarily as a mating network. All the commentators on the hxaro agree that it plays an important integrative role in the social-spatial structure. Wilmsen (1982), using both Harpending's (1976) and Wiessner's (1977) data, illustrates the close relationship between the distance between birthplaces of married !Kung hunter-gatherers with children and the distribution of distance between hxaro partners. Wilmsen's (1982) tables (Tables 6:1 & 6:2) and figure (Fig. 6:1) which illustrate this connection are reproduced here. This close relationship between the hxaro system and mate recruitment distances is surely not coincidental, but reflects the close link between the two. It also provides an answer to a question which Wiessner concedes she is unable to answer.

"Despite extensive questioning and tracing of items, I could find no apparent reason for the length of hxaro paths. They do not systematically bring new goods into the area, nor do they create ties beyond those already discussed ..." (Wiessner 1982:70).

As the hxaro paths generally extend as far as, and in similar intensities to, the distance between the birthplaces of marriage partners, this tends to suggest that the geographical distribution of hxaro paths reflects the prescribed area of

Distance (km)	Number	Proportion
0-30	184	0,53
30-60	87	0,25
60-90	29	0,08
90-120	24	0,07
120-150	13	0,04
150-180	7	0,02
180-210	4	0,01
	<u>348</u>	

Table 6:1 Distances between birthplaces of married zu/oasi Kalahari hunter-gatherers with children (after Wilmsen 1982).

Distance (km)	/ai/ai		ǀum!kwe	
	Number	Proportion	Number	Proportion
0-30	247	0,48	210	0,55
30-60	110	0,22	44	0,12
60-90	(102)	(0,20)	42(79)	0,11(0,21)
90-120	-	-	5	0,01
120-150	36	0,08	-	-
150-180	-	-	-	-
180-210	12	0,02	2	0,005
210-240	-	-	-	-
240-270	-	-	3	0,008

Table 6:2 Distribution of distance between hxaro partners (after Wilmsen 1982).

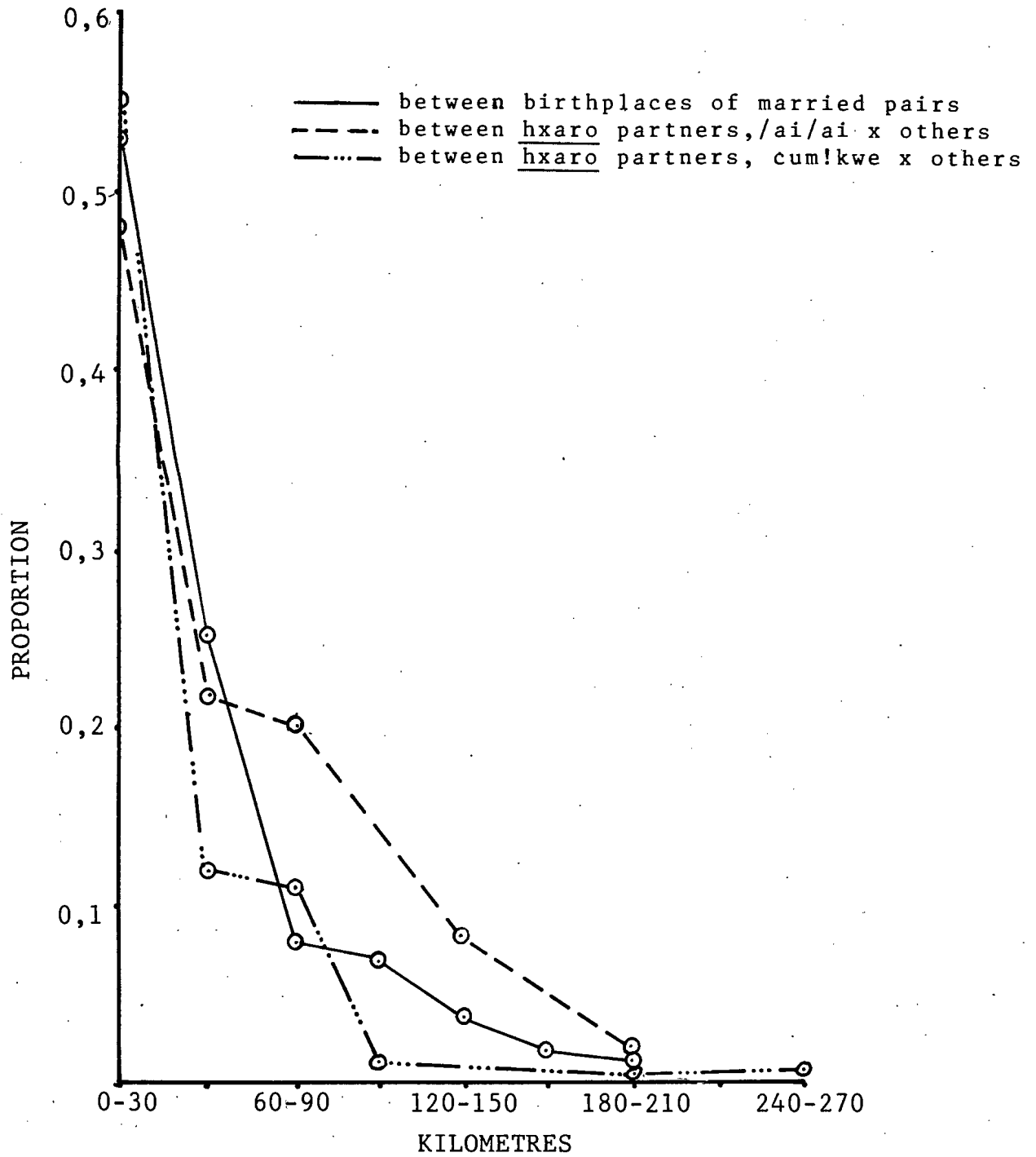


Fig. 6:1. Frequency of distribution of individuals at given distances (after Wilmsen 1982).

the mating network. This could be verified by more extensive ethnographic research.

Further evidence of the link between hxaro and the recruitment of mates derives from Wiessner's (1982) summary of people's average number of hxaro partners by age category (Table 6:3). A significant expansion in the mean number of hxaro partners occur at two crucial periods vis a vis marriage. These increases occurs, on the one hand, between parents with small children and those with mature children (13 to 24), and, on the other, between adolescents and marriageable young adults (10 to 16). Concerning the increase between parents with young and mature children, Wiessner herself remarks that, "Their expansion of hxaro is not surprising as it coincides with the time in which San are concerned with finding spouses for their children and helping them out while their grandchildren are young" (Wiessner 1982:74 my emphasis).

The importance of these types of alliances for facilitating marriage in Australian Aboriginal society was expressed by Yengoyan. "Yengoyan, ... was equally insistent that alliances and exchanges were strategies of social and ideological reproduction: "(they) combine spatially distant groups into meaningful groups for marriage and ceremonial functions" (Yengoyan 1979; echoed in Woodburn 1980)" (Bender 1985b:55).

The foregoing discussion on !Kung hxaro alliance networks thus supports the notion proposed in Chapter 5, that these systems function primarily to ensure social and biological reproduction. It has already been submitted that during the initial phase of hunter-gatherer occupation of the research area,

Age category	Number of San interviewed	Mean number of <u>hxaro</u> partners per person		Mean number of other areas of <u>hxaro</u> ties		Mean number of <u>hxaro</u> partners in each other area of <u>hxaro</u>	
		x	s.d.	x	s.d.	x	s.d.
Adolescents	6	10	4	1	1,1	1	1,8
Marriageable young adults	4	16	5	2,5	0,6	2,3	0,5
Adults with small children	27	13	7	2,9	3,7	2,4	1,7
Adults with mature children	14	24	8	3,6	1,5	4,4	2,0
Old partially dependent adults	8	12	6	2,3	1,0	2,0	1,8

Table 6:3. Summary statistics of hxaro partners by age category (after Wiessner 1982).

almost the entire area would have formed one social region.

From an almost complete absence of 10 000 - 7000 BP sites in the research area, in fact only Sikhanyisweni Shelter which is dated to 10 000 and 9650 BP, the 7000 - 6000 BP period contains three excavated sites. Moreover, there are two segment-rich open-air sites which were put into the 6000 - 5000 BP period in Fig. 4:2, but may date to this period. This temporal distribution of sites suggests a sudden infusion of people into this area rather than a gradual population build-up. As illustrated in Chapter 4, this development appears to coincide with a depopulation of the lower altitudes of southern Natal, which has, on present evidence, been suggested as the most likely source area of the Thukela Basin hunter-gatherers. On the basis of these observations, it is tempting to conclude that the movement of the people into the research area was relatively rapid and typified by a large scale disruption of ties with people remaining in the source area, if indeed there were any. It is thus also likely that, once resident in the central and upper Thukela Basin, the people relied largely, if not entirely, on others in this area for social and biological reproduction.

In this context, it is further proposed that the society would have been under considerable strain to maintain this network. This would have been resulted from low population density which, as submitted earlier, was associated with the initial phase of hunter-gatherer occupation as well as the extensive area involved and the rugged nature of the terrain. As Wobst commented on a hypothetically similar situation, 'long distance moves would tend to lower population density and

introduce an element of instability into an interregional network' (Wobst 1974:153). Elaborate logistical systems would be required to ensure that people met regularly. Moreover, people would be forced to work harder and invest more substantially, in maintaining their social relations. It is in this context that the 7000 - 4000 BP abundance of hxaro exchange type items, particularly evident north of the Thukela River, becomes explicable.

The hxaro alliance network prevalent in !Kung society is partly maintained by the reciprocal exchange of gifts. According to Wiessner (1982:70), hxaro gift items can be any non-food items, such as beads, arrows, ostrich eggshells, cloths, blankets, bowls and pots. The !Kung expend many hours in maintaining critical social relations (Wiessner 1982:75). Part of this time is spent making, remaking and fixing hxaro exchange gifts which are then exchanged. I submit that a society, such as the early Thukela Basin hunter-gatherer society, experiencing uncertainty in its maintenance of social relations, which are critical for social production and reproduction, will expend much time and energy in servicing these social relations. In doing so the society strengthens the entire social network. This will be partially achieved by intensifying the exchange of goods between people which, in turn, would entail a greater circulation of exchange items within these networks. Thus one would anticipate an increased deposition of these items during periods for which severe social stress has been suggested.

The 7000 - 4000 BP abundance of exchange items is thus regarded as a concrete manifestation of this society experiencing

acute stress. To ensure social production and reproduction under unstable and stressful conditions, people would have strengthened their connections through the intensified exchange of hxaro items. Intensifying and elaborating ritual activity is another means of maintaining and strengthening social relations, as will be discussed later, and it is likely that this also typified this period.

As discussed at the close of Chapter 5, there is a decline in the proportions in hxaro type items at Nkupe Shelter around 5000 BP. The Nkupe Shelter 5000 - 4000 BP deposits do, however, contain a greater proportion of these items than the following period. Different kinds of hxaro type items are represented in the two periods between 7000 - 4000 BP, but continuity between them is reflected in the presence of mini-points in both. It is possible that the partial temporal swap-over reflected in the Nkupe Shelter material cultural record, occurred when the Ndaka, Toleni and Injasuthi social regions were reaching their final formative stages. In this context, it could also be that the decrease of hxaro items is symptomatic of a society beginning to experience a greater level of stability, where there is no need to invest so heavily in servicing extended social relations. This explanation suggests that a period of relative social stability ensued from perhaps as early as 5000 BP, but certainly 4000 BP, until around 3000 BP. The 4000 - 2000 BP period will be dealt with later.

I have submitted that Thukela Basin hunter-gatherer society experienced severe stress during its initial occupation phase and probably for a large part of the second phase which

culminated in the establishment of the Injasuthi, Ndaka and Toleni social regions. We now need to consider the impact on these conditions on social relations. We are hampered by inadequate information on the progenitor society, and especially their reasons for abandoning their home area. Unfortunately, short of further fieldwork, nothing can be done about this situation at present and I believe that it would be futile to speculate on the reasons. Thus, further research aimed at the recovery of terminal Pleistocene deposits in Natal is imperative.

Nevertheless, having inferred that we are dealing with an immigrant population whose diet was probably rich in lean meat and who are likely to have suffered severe stress, allows us to offer some informed comments.

According to Begler, 'age and sex may provide the bases for the only ascribed, sociocentric statuses in egalitarian society which are accompanied by definitive roles ... [but] ... beyond this their similarity to each other ceases' (Begler 1978:573). While age may be viewed as an achieved status and one must simply manage to survive a given period to progress from one rank to another, sex provides the grounds for the separation of the society into two sociocentric statuses which are not only constant, but, unlike age, are ascribed for life (Begler 1978). Similar sentiments are expressed by Woodburn. 'What is perhaps surprising is that [egalitarian] societies systematically eliminate distinctions - other than those between the sexes - of wealth, of power and of status' (Woodburn 1982:434). Sanday (1981) is further of the opinion that the sexes tend to become more alienated from each other when the environment is construed

as hostile.

It would thus appear that the only social divisions within egalitarian hunter-gatherer societies which are ascribed for life are those between the sexes. These divisions are further clarified by the sexual division of labour, where men and women are opposed to each other in production. Men tend to be the hunters and women the gatherers. Lee (1979) reports that !Kung women have no desire to hunt, nor have men a desire to see gathering as their primary subsistence task. Exceptions to this rule are known, as for example the Agta of the Phillipines where women hunt large game (Estioko-Griffin & Griffin 1981) or as amongst the Pygmies where women participate in communal hunts (Turnbull 1981).

Acceptance of a gender related division of labour in hunter-gatherer societies does not necessarily imply support for the notion that subsistence roles are physiologically determined. On the contrary, I would argue that the examples of women hunters cited above disprove this. However, along with Coontz & Henderson (1986a) and others, I accept that there is a well established general pattern among modern hunter-gatherers where men hunt and women gather plant foods and both are responsible for the gathering of small ground game. Indeed, as this division of labour so universally characterises hunter-gatherer societies, it is considered safe to assume that it would also have typified Thukela Basin hunter-gatherer society.

Although the sexes are, obviously, biologically distinct and this provides the basis for their separation, these differences and the social division of labour do not

automatically prescribe their social standing. In a review article of women's studies, Quinn commented, for example, that,

"More directly the physical advantage of males has been construed by some as an explanation of the universal dominance of men over women. In this connection, greater male strength and energy are no more relevant than another documented physiological sex difference: greater male aggressiveness" (Quinn 1977:187).

The meaning and status ascribed to the different sexes is a product of social and cultural processes (Conkey & Spektor 1984; Ortner & Whitehead 1981; Smith, S. n.d.) and will thus vary according to the historical situations in which societies find themselves.

Until the mid-1960s hunter-gatherer women were generally considered by anthropologists to occupy inferior social positions. However, the growing strength of the women's movement generated specific research on hunter-gatherer women by female anthropologists, and it became apparent that this was untrue. Indeed, it soon became clear that many societies were typified by a remarkable degree of gender equality. More recently, however, some anthropologists questioned whether all hunter-gatherer societies reflect gender equality (Begler 1978). Clearly they do not, and as Begler commented, 'it would thus seem that while all foraging societies are egalitarian some are more egalitarian than others' (Begler 1978:585). The Eskimos and Australian Aborigines were cited by Begler (1978) as examples of hunter-gatherer societies displaying gender inequality. Friedl (1975) and Lamphere's (1974) comments on the submissiveness of Eskimo women support Begler's proposition.

Opposing this position, Coontz & Henderson recently

concluded that 'the best generalisation to be made about communal [hunter-gatherer] societies remains that they lack the institutionalised subordination of women or consistent denial of social adulthood to the female sex' (Coontz & Henderson 1986a:117). Although they cite examples of societies where women have been considered to occupy inferior social positions, they believe that most of them are suspect (Coontz & Henderson 1986a:117). They then proceed to search for the origins of sexual inequality in lineage societies. No mention is made of Begler's (1978) seminal paper in which she illustrates sexual inequality in hunter-gatherer societies. I believe that Coontz and Henderson have made a grave error in disregarding the evidence for, and thus existence of, gender inequality in hunter-gatherer societies. Although it is true that many of these societies display gender equality, it cannot be denied that there are also those in which women occupy inferior social positions.

Before proceeding, some critical concepts employed in the ensuing discussion are defined. Political power 'refers to the ability or right to control or influence group decision making, including the assignment of leadership roles beyond the household level' (Sanday 1981:114). Authority, on the other hand, is defined as 'the right to make a particular decision and to command obedience' (Smith, M.G. 1960:18 & 19). Real male dominance occurs when women are excluded from political and economic decision making and there is male aggression towards women, whilst mythical male dominance refers to situations where women enjoy political and economic power but are the objects of

male aggression (Rogers 1975; Sanday 1981).

Taking as our cue the notion that gender relations in some hunter-gatherer societies are more equal than others, the nature of these relations in early Thukela Basin society is investigated. Coontz & Henderson argue that the "origins of sexual stratification should be sought in women's role in production, and not in her powers of reproduction" (Coontz & Henderson 1986b:35). In principal, I agree with this sentiment, but as Sanday (1981) has illustrated, there are other criteria which influence the social position of women.

Turning to the early Thukela Basin hunter-gatherer society, I have submitted that we are dealing with a society newly arrived in this area and one which was experiencing social, economic and nutritional stress. Under these circumstances it is likely that the society would have perceived its environment as hostile and, as mentioned earlier, this may have encouraged the sexes to become more alienated from one another (Sanday 1981).

Perhaps the first item that requires examination is the potential effect of migration on gender relations. A tendency identified by Sanday (1981), is that migration has a negative effect on the expression of female power and authority. This is clearly borne out by a table produced by her on the basis of 95 case studies (Table 6:4). This table shows that in most societies displaying some form of mythical male dominance (66%) or real male dominance (70%), migration was said to be 'recent' (i.e. 100 - 150 years), whilst in societies (71%) that migrated 'very early, long ago' or where people were said to be 'aboriginal to an area', there is a tendency towards sexual

	Societies where sexes are equal		Societies with some or mythical male dominance		Societies where sexes are unequal		Row totals (N)
	N	%	N	%	N	%	
Migration is reported as occurring 'very early', 'long ago' or people are said to be 'aboriginal to the area'	22	71	14	34	7	30	43
Migration is reported as being 'recent' within the last 100-150 years or people are said to be migrating conquerors	9	29	27	66	16	70	52
Column totals	31	100	41	100	23	100	95

Table 6:4. Relationship between male dominance and the experience of migration (after Sanday 1981).

equality. It was submitted earlier in this chapter, that the initial occupation of the research area occurred relatively rapidly and in Chapter 4 it was noted that the Drakensberg region of the research area was inhabited only after 5000 BP. This would suggest that two main episodes of geographical expansion occurred, first around 7000 BP and then 5/4000 BP. Thus the possibility of the Thukela Basin women's status being devalued due to territorial expansion would only apply in these two situations. In the earlier case, it is likely to have either influenced the establishment of an unequal gender relationship, or the maintenance of an already existing patterning which, as will be argued, was probably strengthened and sustained by other factors. In the later situation, it may have influenced the gender-related struggle which I submit this society was experiencing.

Increased stress also appears to encourage male dominance, usually drawing it out if it is latent or exacerbating it if already present. Table 6:5 (after Sanday 1981) clearly illustrates the tendency of real or mythical male dominance to emerge when there is either a shortage or fluctuation in food supply. This might have been the case among the early Thukela Basin hunter-gatherers whose diet, I have argued, probably comprised a relatively high proportion of hunted food.

It would also appear that in

"cases of severe social stress or cultural disruption, the fighting takes on a different flavour. Instead of fighting the external oppressor, men band together and turn aggressor against women. In these cases male dominance seems extreme because the whole of public life, that is life that does not revolve around childrearing and family activities, becomes synonymous with the male collective" (Sanday 1981:9).

	Societies where sexes are equal		Societies with some or mythical male dominance		Societies where sexes are unequal		Row totals (N)
	N	%	N	%	N	%	
Food is constant	25	64	8	16	7	20	40
Occasional hunger of famine	10	26	28	56	19	54	57
Periodic or chronic hunger or evidence of protein deficiency	4	10	14	28	9	26	27
Column totals	39	100	50	100	35	100	124

Table 6:5. Relationship between male dominance and food stress (after Sanday 1981).

Sanday (1981) argues further that stress does not automatically or immediately produce male oppression of women, but that generally speaking this dominance is based on a prior foundation formed by sexual separateness and an outer orientation.

The Thukela Basin hunter-gatherers, obviously, never faced a literal human oppressor. However, it is possible that their natural and social environment would have been figuratively perceived in this form. Moreover, this society with its strong hunting component would, I believe, have had an outer orientation, namely an orientation in which men pursue power outside of their immediate social realm, in other words, "out there" (Sanday 1981:5).

Real male dominance also tends to emerge where survival rests more on male than female actions. As Sanday remarked, "It is easy to imagine that dependence on the male would evolve when expansionism, migration, or social stress puts men in the position of fighting literally and figuratively to maintain an old or forge a new sociocultural identity in the face of pressures threatening to destroy this identity" (Sanday 1981:181). It is in these situations, Sanday (1981) argues, that for cultural survival and the children's sake women accept real male dominance, as their lives and those of their children may depend on their willingness to do so.

Interestingly, although Coontz & Henderson criticise Sanday (1981) for ignoring internal sources of stress, they acknowledge that she has shown "that certain kinds of stress, such as war, migration and environmental conditions elevate the

male role and lead to new sexual fears and tensions' (Coontz & Henderson 1986b:30). It is necessary to point out that the above reference to 'environmental conditions' refers to the nature of the economy, and not as it is generally understood in this study.

Male dominance also tends to emerge in societies in which hunting is emphasised. Sanday's (1981) cross-cultural study illustrates that some form of male dominance typifies 75% of her sample of hunting orientated societies, whilst sexual equality typifies about 55% of her gathering orientated societies (Table 6:6).

Eskimo and Chipewyan societies are examples of hunting orientated societies in which males are dominant (Begler 1978, Sharp, H. 1981). Although Briggs (1981:291) argues that Eskimo women don't perceive themselves as being oppressed, it is evident from her report that males hold power. For example, as she herself says, men have the final say concerning moving, travelling and hunting and may simply ignore their wife's wishes; females are excluded from public performance and decision making; and finally there is male aggression towards females. These phenomena all signify real male dominance. Friedl (1975) and Lamphere (1974) also comment on the submissiveness of Eskimo women.

A factor raised by Draper (1975) in connection with !Kung society which may have influenced the nature of gender relations in early Thukela Basin society, is that the frequent absence of men from home may result in their elevated status because they would have been viewed as a scarce commodity with higher value than women who are constantly present in the household. 'If men

Type of subsistence	Societies where sexes are equal		Societies with some or mythical male dominance		Societies where sexes are unequal		Row totals	
	n	%	n	%	n	%	n	%
<u>Animal economies</u>								
Hunting	3	25	6	50	3	25	12	100
Animal husbandry	3	21	5	36	6	43	14	100
<u>Fishing</u>	7	54	4	31	2	15	13	100
<u>Plant economies</u>								
Gathering	7	54	3	23	3	23	13	100
Semi-intensive agriculture (fruit trees and/or vegetable gardens)	2	15	7	54	4	31	13	100
Shifting cultivation of fields	13	35	12	32	12	32	37	99
Advanced agriculture	10	27	18	49	9	24	37	100
Column totals	45 (32%)		55 (40%)		39 (28%)		139	

Table 6:6 Relationship between the type of subsistence economy and male dominance.

in this sense are a scarce commodity, their homecoming must have had greater significance to those who stay at home, and their influence even in routine domestic affairs may be heightened simply because others are less habituated to their presence' (Draper 1975:86). The implications of these insights for the present hypothesis are self evident.

In conclusion, it would seem that there is a strong case for arguing the existence of an unequal gender relationship in early Holocene Thukela Basin hunter-gatherer society. Inadequate information on the progenitor society has inhibited discussion on how and why the early Holocene Thukela Basin hunter-gatherer society got itself into a stressful situation. In this respect, however, I would like to draw attention to the point made in Chapter 3, that social actions may result in unintended consequences. Thus, they can precipitate material effects not anticipated by the social group instrumental in influencing the changes.

CHANGING SOCIAL RELATIONS: HOW AND WHY ?

Substantial social, demographic and economic changes occurred between the initial occupation of the research area and the arrival of the farming communities between 1500 and 2000 years ago. These include the disintegration of the original social region and the emergence of three social regions in its place, substantial subsistence adjustments, population growth, and finally the fluctuating intensity of hxaro exchange items.

As in the previous section, I shall concentrate on the implications of these changes for social relations, stressing gender relations. In essence, I will submit that during this period the status of women progressively improved. This development is suggested by the diminishing intensity of many of the phenomena that precipitated male dominance to begin with. Women began to play an increasing role in the economy. They provided plant foods which are rich in carbohydrates (Vincent 1975), and also some of the smaller fauna (i.e. dassies, hares and microfauna), in increasing proportions. Economic and nutritional stress would have been reduced as the diet became more balanced, that is less reliant on lean meat and more reliant on carbohydrate-rich foods (e.g. Diener et al 1980-1; Speth & Spielman 1983). The most accessible and efficient source of energy for humans are the soluble carbohydrates from plant foods (Marean 1986). Moreover, less anxiety would have been associated with the procurement of food in general, and meat in particular.

Social and demographic stress would have been partially alleviated by greater population density, which entailed people being less dispersed. This, it would seem, is reflected in the reduced intensity of hxaro items between 5000 and 3000 BP, which in turn suggests a reduced energy expenditure in the maintenance of social relations. Furthermore, in the context of Draper's (1975) insight that the 'scarcity' of people could influence their increased status, this would now apply to both women and men. However, it is likely that men would still have been absent for longer periods while hunting than women would

have been away gathering.

Considering these developments together, it is likely that the suggested initial perceptions of the natural and social environments as being hostile would have been somewhat assuaged. In addition to the foregoing trends which would have influenced a reduction in male dominance, we need to consider the pertinent features of societies for which gender equality has been argued. To be borne in mind from the outset though, is that it is not being suggested or implied that the movement towards sexual equality, and perhaps even the attainment of gender parity in Thukela Basin hunter-gatherer society, was merely epiphenomenal to the social and economic adjustments. On the contrary, it is believed that these developments were the outcome of a conscious struggle on the part of women to improve their lot. In this connection, it could be asked: "Why the struggle? Would men necessarily want to prevent this process? Surely they would welcome changes that brought greater equality, fulfillment and happiness to half the population?" Today's world, as well as past human history, bears testimony to the fact that social relations do not operate in this way. Indeed, once power is achieved by individuals, groups, classes, nations etc, it is generally not willingly or easily relinquished. As Sanday, thinking specifically of gender relations, commented, "Once a stance of control and manipulation is adopted, it is not easily abandoned" (Sanday 1981:51).

According to Woodburn, equality is achieved in egalitarian societies "through direct individual access to resources, through direct individual access to the means of

coercion and means of mobility; through procedures which prevent saving and accumulation and impose sharing through mechanisms which allow goods to circulate without making people dependent on one another" (Woodburn 1982:431).

Leacock (1978) and Sanday (1973, 1974, 1981) in more specific analyses of the variables influencing women's status, stress the importance of the way in which women's subsistence contribution is structured. They argue that women's status is not simply contingent on the scale of their contribution, as clearly women make substantial contributions in numerous societies but in most of these their status is low. Ultimately, the critical factor influencing women's status is whether they control their working conditions and the distribution of the goods they produce (Leacock 1978). By being able to control their production along with contributing a substantial, if not major, portion of the diet would have enabled women to participate increasingly in group decision making beyond the household level and thereby achieve increasing levels of political and economic power. It is possible that at some stage, mythical male dominance, that is where women enjoy political and economic power but are the subjects of male aggression, typified Thukela Basin hunter-gatherer society. However, we presently lack the theoretical and methodological tools, and perhaps the archaeological evidence, to comment further on this possibility.

As, in the final analysis, the same technological and environmental conditions limit both men and women in hunting and gathering societies, it would be extremely difficult for any one group to physically control the activities of women. In !Kung

society, the ability of women to retain control over their own production is related, among other things, to the simplicity of their technology and economy (Draper 1975). Essentially, they do not need men's assistance at any stage in the collection and preparation of gathered foods. It is likely that this would have pertained to the hunting orientated early Holocene Thukela Basin society, especially as males would have been absent for extended periods.

While society in general, and men in particular, may have invoked a range of ideological weaponry to try and counter the women's push for higher status, it is likely to have impeded but not curtailed this process. In the scenario that is being developed here, it is submitted that women did, in fact, achieve increased social status. However, the nature of these changes was obviously not such that it undermined social reproduction. On the contrary, the economic, social and demographic information, and the explanations thereof, would seem to indicate that the Thukela Basin hunter-gatherer society experienced reduced social and economic stress during this period.

Returning to the consequences of women's increased subsistence contribution, Schlegel & Barry's (1986) recent cross-cultural study illustrates that the more women contribute to the diet the less they are perceived as instruments for male sexual and reproductive needs and more as persons in their own right. While Schlegel & Barry (1986) acknowledge that high subsistence contribution does not itself necessarily result in high status, they submit that it can lead to women being viewed as being more self-sufficient and less malleable than they are

viewed in low contribution societies. This point is corroborated by Draper's (1975) !Kung observations, where women attain self esteem from their daily contribution to the family's food.

In a flow diagram (Sanday 1974) charting the possibilities for women's status when they enter the subsistence arena three possibilities are suggested. Firstly, women may only temporarily occupy this domain during male absenteeism; secondly, they may become predominantly labourers; or, thirdly, they may continue to occupy this sphere together with males in a balanced division of labour relationship. Sanday (1974) argues that the ethnographic data indicate that in the first two cases the status of women remains unaltered but in the third they develop political and economic power. I submit that the Thukela Basin hunter-gatherer women fall into the third category, as they were probably responsible for the bulk of the plant food collected and a portion of the smaller ground game (Murdock & Provost 1973).

It has also been remarked (Sanday 1981) that women achieve power when social survival rests on their economic self-sufficiency as well as on the hunting activities of men. Hunting remains the most prestigious subsistence activity but women provide the bulk of the food. That hunting remained a more prestigious subsistence activity in Thukela Basin society is suggested archaeologically by the raw material composition of the formal tools. An exotic raw material (CCS) was used north of the Thukela River for tools (scrapers and backed pieces) associated with hunting and the subsequent processing of meat, whilst a local raw material (hornfels) was used for adzes which it has

been submitted were associated primarily with women's activities, namely, the preparation and maintenance of digging sticks used to excavate underground plant foods.

Along with their increased subsistence contribution, women would also have been instrumental in collecting information on game movement and the bush in general when they were out gathering (Draper 1975; Heinz 1978; Sanday 1981). Women are known to be extremely skilled readers of signs in the bush and thus their information may have been critical in the success and failure of hunting.

By increasing their subsistence contribution, women may themselves have faced something of a crisis over mobility. Lee (1979) isolated mobility as a critical factor affecting women's lives in !Kung society.

'The work of the !Kung women in subsistence is of relatively high productivity - higher than that of men. And like the men, the !Kung women range widely through the countryside to find food. The need for mobility is a key factor in the foraging mode of production. Against this are the demands placed upon women in their other role: reproduction. Pregnancy, childbirth, lactation and the need to care for and carry the young infant tends to draw a woman toward her home and reduce her mobility. Women are thus at the intersection of two critical systems within the foraging economy: the productive system and the reproductive system, each with its own conflicting demands. The one necessitates mobility and the other penalises it. In a hunting and gathering society there is a tight articulation between the two systems so that a change of the variables in the one system leads to adjustment of the variable in the other' (Lee 1979:308).

Binford (1980; see also Kelly 1983) has distinguished between residential and logistical mobility. Residential mobility refers to the movement of all camp members from one location to another, whereas logistical mobility refers to the

movement of small groups or individuals from one location to another and can take the form of one-day trips from a camp or of task specific journeys of longer duration, such as hunting trips. Kelly argues that "groups primarily dependent on plant foods cover a greater area of land via residential mobility than do fauna-dependent groups" (Kelly 1983:296) and further "that extensive logistical mobility becomes viable only when large faunal resources are to be acquired ..." (Kelly 1983:298). In the context of the changes that have been submitted for Thukela Basin hunter-gatherers, it is thus arguable that they experienced increased residential mobility and decreased logistical mobility as they focused increasingly on plant foods and less on large game. To ascertain which of these changes was of a greater magnitude and/or would have had more impact on women, requires a simulation study that is beyond the scope of this study. Nevertheless, as women appear to have increased their subsistence contribution this suggests that even if they experienced greater mobility it was not sufficiently great nor taxing to deter them from increasing their subsistence contribution.

In the light of the foregoing discussion it is interesting to note that Sanday (1981), using Murdock & Provost's (1973) cross-cultural codes, calculated that in hunting orientated economies women's labour accounts for 56% of all technological activities as compared with 44% in gathering orientated economies (Table 6:7). It is necessary to point out that Murdock & Provost (1973) subsume subsistence activities such as hunting and gathering under technological activities. I suspect that Sanday (1981) followed suit. Childcare, on the

Type of subsistence	Predominantly female technological activities		Sexually integrated technological activities		Average % of all technological activities in which women participate.
	n	%	n	%	
<u>Animal economies</u>					
Hunting	12	51,4	12	4,4	55,8
Animal husbandry	14	43,9	14	10,6	54,5
<u>Fishing</u>	15	42,6	15	10,1	52,7
<u>Plant economies</u>					
Gathering	14	37,2	14	6,8	44,0
Semi-intensive agriculture (fruit trees and/or vegetable gardens)	15	32,0	15	9,5	41,5
Shifting cultivation of fields	43	38,7	43	7,6	46,3
Advanced agriculture	43	33,5	43	11,0	44,5
Column totals	156		156		

Table 6:7 The sexual division of labour in different subsistence economies. The average percentage of all technological activities in which women participate is the sum of the percentages in the first two columns (after Sanday 1981).

other hand, is not regarded by them as a technological activity.. In both sets of societies, women would have been primarily responsible for childcare. While cross-cultural coding must obviously be treated with caution, it is unlikely that the patterns generated by them are totally devoid of any substance. Thus, they should not be discounted out of hand. Even if women's technological activities are reduced by a fifth in hunting orientated societies this would bring the proportion of labour activities they perform to essentially the same level as reflected in gathering orientated societies (i.e. 44%). However, we must not forget the substantial amount of labour involved in childcare. Thus, there may be some truth in Sanday's conclusion that, "ironically where hunting or animal husbandry constitutes the main subsistence focus, women do more work than men" (Sanday 1981:81).

Once a residential and logistical mobility simulation study, as suggested above, has been completed, it would be instructive to take it one step further and consider the results obtained against the calculations of Sanday (1981) and others, regarding the workload of women in hunting orientated and gathering orientated economies.

In summary, it would appear that women's status experienced considerable improvement between 7000 and 2000 BP. We cannot comment unequivocally on whether by 2000 BP the Thukela Basin gender relations reflected the kind of equality visible, for example, among mobile Kalahari hunter-gatherers. However, we can probably argue with some sureness that if male dominance did

exist, it was probably in the sphere of mythical male dominance which tends to occur when the males and females are jointly responsible for social continuity (Sanday 1981:199).

It is against this social background that we need to try and explain the increasing Thukela Basin population, bearing in mind; firstly, that 'population growth is not an inherent (or inelastic) tendency of humans ... it is a human possibility which is encouraged in some situations and discouraged in others' (Cowgill 1975b:521), and; secondly, that in Australian Aboriginal society it is women who control population regulation, and they do so at an individual rather than a group level (Cowlshaw 1979, reported in Lourandos 1985a). It is possible that the latter phenomenon typified Thukela Basin Holocene hunter-gatherer society. Before exploring why the Thukela Basin hunter-gatherer society, and more particularly women may have viewed an expanding population as beneficial, we need to examine briefly the mechanisms that would have allowed and/or encouraged population growth in the Thukela Basin. The subject of population adjustment, as noted in Chapters 2 and 5, has received much research and debate. It is beyond the scope of this study to review the entire field, but I would merely like to set out some of the findings pertinent to the present hypothesis.

Frisch (1978) proposed, in what has come to be known as the 'critical fat hypothesis', that fertility is directly related to nutrition. She submitted that undernutrition will result in late menarche which in turn precipitates low fertility and, conversely, that the increased intake of carbohydrates leads to greater body fat which in turn precipitates a reduction in the

age of menarche and thus increased fertility. While Frisch's hypothesis seems to be in some doubt but not disproved (Handwerker 1983; Hassan 1981; Howell 1979), there appears to be strong support for linking population growth to improved nutrition provided, of course, amenable social conditions exist. It was mentioned earlier that a diet based on a substantial carbohydrate intake, along with adequate meat protein and fat, is superior to one rich in animal protein and low in carbohydrates and fat (Diener et al 1980-1; Speth & Spielman 1983).

Binford & Chasko's (1976:137 & 138) demographic research among the Nunamiut Eskimos is of particular interest. They concluded that intensified exploitation of smaller and smaller animals and plant foods at the expense of large animals, which it is believed also typified Thukela Basin 7000 - 2000 BP hunter-gatherer society, precipitated a shift in the protein/carbohydrate proportions in the diet, favouring increased carbohydrate proportions. It is these conditions, they argue, which probably caused the dramatic increases in fertility witnessed among the Nunamiut as well as other Eskimo groups. This agrees with Frisch's (1978) conclusion on the relationship between improved nutrition and increasing fertility. A further effect of this intensification would be decreased male absenteeism, which might, though not necessarily, have encouraged population growth. Binford & Chasko (1976) did mention though, that this trend may be offset by women being more mobile in food procurement, thus causing reduced fertility.

On the relationship between nutrition, lactation and fertility Handwerker commented that, 'The most convincing

explanation for the exceptionally low fertility of the !Kung themselves, however, is an interaction effect between lactation and dietary stress (Wilmsen 1981 cf. Handwerker AA 95:15)" (Handwerker 1985:655). If dietary stress is considered to have a detrimental effect on lactation and thus fertility, then it is a condition that would have been experienced more acutely by the early Thukela Basin hunter-gatherers rather than the later ones. The obvious implication of this proposition in the present research context, is that the improving nutrition of the Thukela Basin women, due to the increasing carbohydrate and decreasing lean meat content of the diet, would have produced improved lactation and this, in turn, would have precipitated increased fertility.

Infant mortality is another phenomenon which may have been affected by poor nutrition. Speth & Spielman remarked that, "We expect that owing to the greater susceptibility to infection that accompanies a deficiency in linoleic acid, infant mortality may rise in hunter-gatherer populations that rely seasonally on lean meat diets" (Speth & Spielman 1983:17). Children in communities with an all year emphasis on lean meat, as has been suggested for early Holocene Thukela Basin hunter-gatherers, would therefore probably have been even more susceptible to diseases than those relying seasonally on lean meat. Thus we may expect decreasing infant mortality with an improving diet.

In a similar vein, Riches (1974, 1982) has argued that in Eskimo society there is a causal relationship between subsistence stress and infanticide. If, indeed, this is the case, it raises the possibility that a similar relationship typified early

Thukela Basin society, and then lessened as dietary stress was ameliorated.

While more examples of the relationship between nutrition on the one hand and fertility and population growth on the other could be cited, sufficient proof of this relationship has been provided by the foregoing examples. Some researchers have tried to isolate a single physiological variable which would have precipitated increased fertility and population growth. However, I suspect that a variety of interlinked phenomena are involved with nutrition and the appropriate social conditions of critical importance.

Next, we need to consider how society, and women in particular, would have benefitted from population growth. While it is difficult, and perhaps will even be impossible, to know whether people consciously encouraged population growth by adjusting their diets, we can argue with relative sureness that improved nutrition created the necessary conditions for population growth and that in the long-term it was encouraged. It is possible though, that infanticide and other measures to remove excess pregnancies were occasionally practised by the Thukela Basin hunter-gatherers, especially during the early stages of their occupation of the research area when nutritional stress would arguably have been at its greatest.

A growing population would have provided the justification for women to have sustained, and indeed increased, their contribution to the diet, as, through hunting men would have been unable to meet the society's nutritional needs. In addition, a comparatively high lean meat diet would have been

nutritionally stressful. The numerous implications of women adopting this course of action have already been outlined. I suggest that women initially increased their subsistence contribution to improve their status. By doing so, they created the conditions for population growth which they then encouraged, and this, in turn, provided them with added support for their expanding subsistence contribution. Cowgill (1975b) has also shown that very minor and relatively imperceptible population increases in the short term would have precipitated substantial population growth in the long term.

An increasing population would also have served to reduce social and demographic stress which, as submitted earlier, would have been associated with male dominance. It could be argued that a growing population may itself have heightened social stress and instability in the long run.

After 3000 BP, the Toleni and Ndaka regions experienced a noticeable increase in the quantities of hxaro-type items. This would tend to suggest that, as during the 7000 - 4000 BP period, people were being required to invest more heavily in maintaining social relations. While the instability and stress of the early occupation probably resulted from, among other things, low population density, the later instability, I tentatively submit, was caused by increasing population density. It is suggested that after 3000 BP, population densities within the Ndaka and Toleni social regions may have reached a point where they stimulated social contact to a degree which precipitated social stress and instability. These contacts may have been of both an intentional and unintentional nature, taking

the form of larger gatherings of people and perhaps for longer periods of the year than previously, and unscheduled contacts which may have been caused by the 'shrinkage' of the land as a result of population growth.

Why would people have remained in a stressful situation of this nature when large parts of the research area remained unoccupied (Fig. 5:17) ? To begin with, it is likely that people began gradually extending the areas covered by the social regions. However, our archaeological resolution is much too poor to recognise this. Moreover, between 1500 and 2000 years ago, farming communities entered the Thukela Basin and, as will be illustrated in the following chapter, this had a substantial impact on hunter-gatherer settlement distribution. While population pressure might have influenced people to extend the social regions, it is likely that people would have first attempted to alleviate the stress by other means. Furthermore, these alleviatory measures, namely, territorial expansion and the other mechanisms which will be specified below, are not likely to have been mutually exclusive. Thus it is plausible that all of these features typified 3000 - 2000 BP hunter-gatherer communities north of the Thukela River.

What alternate mechanisms for alleviating such stress are documented in the literature ? Ethnographic research tends to capture societies at particular historic instances, and thus is generally unable to inform on long-term social development. !Kung hunter-gatherer society has, however, experienced numerous economic and social changes during the period of major ethnographic research and this has been supplemented by early

written records. It is clear from these observations on the !Kung that intensified social life, no matter its origins, leads to conflicts and social tensions. As Lee remarked,

"The major disadvantage of intense social life is the increased frequency of conflict. Arguments and fights take place in !Kung camps of all sizes and at all seasons, but the large camps seem particularly plagued with disputes" (Lee 1979:366).

On the basis of these observations, it is tempting to conclude that past hunter-gatherer societies experiencing intensified social interaction will experience heightened tensions and conflict.

Societies experiencing social instability and stress of this nature which are unable to expand geographically, seem to pursue two related courses of mitigative action, both of which function to enhance social cohesion. First, they manifest an increase in ritual and ceremonial activity. Guenther noted amongst the farm 'Bushmen' of the Ghanzi District that, "As the tensions and pressures in farm Bushmen's everyday existence have grown, so has the importance of ritual through which it is partially alleviated" (Guenther 1976:50). Johnson commented further that,

"intensification of ritual, however, may signal a system in trouble rather than one doing particularly well. Conversely, absence of elaborate ritual need not be taken as evidence of a benighted population so occupied with a struggle for subsistence that they have no time for more 'intellectual' affairs" (Johnson 1982:406).

The second course of action available to people, as elaborated earlier, is for them to work harder on maintaining social relations through the increased exchange of items between alliance partners. Thus, increasing ritual activity which may have, among other things, encouraged the use of ochre and the

strengthening of alliance relationships through the exchange of items, will both tend to increase the quantity of cultural items contained in a society. This phenomenon typifies the Ndaka and Toleni regions between 3000 and 2000 BP.

The area south of the Thukela River appears not to have experienced the same temporal distribution of hxaro type items as the area to the north. This must be investigated further. First, we need to outline the chronology of this area's sites. The Gehle Shelter deposits primarily date between 7000 and 5000 BP, with some deposits dating to between 5000 and 4000 BP. Diamond 1 dates to between 5000 and 2000 BP with the bulk of the deposits probably postdating 4000 BP. The Clarke's Shelter deposits date to between about 3000 and 2000 BP.

The Gehle Shelter deposits thus date to a period for which stressful and unstable conditions have been suggested, and therefore we would anticipate an abundance of hxaro type items, as in contemporary deposits to the north. Ground stones and segments, which may have served as exchange items, were recovered from Gehle Shelter, but no OES, OES beads, little ochre and no other suitable organic remains were found. The absence of OES, whose closest natural source would have been the southern Orange Free State plains, is not, as mentioned in Chapter 5, presently explicable. The absence of other organic remains which may have served as exchange items, if they existed in the first place, is likely to be due to unfavourable preservation conditions. To explore this issue further the recovery of 7000 - 4000 BP deposits with favourable organic preservation south of the Thukela River is imperative.

Turning to the period after 3000 BP in the Injasuthi region, it is unlikely that the absence of organic exchange items at Clarke's Shelter and Diamond 1 are due to preservational factors. Rather, the explanation for their absence as well as those of a more durable nature, must be sought in the conditions of the society itself. The most plausible explanation at present is that while the Injasuthi region hunter-gatherer community had progressed beyond the initial stage of instability and social stress, it had yet to reach the population density which, it was tentatively submitted, precipitated social instability and stress in the Ndaka and Toleni social regions. In this respect, it has been argued that the Ndaka region experienced a higher level of intensification than the Injasuthi region, and there is evidence to suggest that the Toleni region may also have experienced greater intensification than it.

It is of interest, however, that shortly after 2000 years ago (1580 BP), Clarke's Shelter displays a marked increase in ochre residue and for the first time produced worked bone and ground stone. Moreover, the Driel Shelter (which is about 40 km from Diamond 1) 1775 BP deposits produced items such as a knife-like spatula made of relatively fine, soft-grained sedimentary rock, a fragment of an open bowl carved out of talc schist, an ochre ball and OES beads (Maggs & Ward 1980). These deposits predate the arrival of the farmers in the central Thukela Basin by between 150 and 350 years. It is impossible to comment unequivocally on whether the post 2000 BP increase in material cultural items at these sites results from social and economic processes being experienced by Thukela Basin

hunter-gatherer society unrelated to the penetration of farmers into the Thukela Basin. On the other hand, this phenomenon may be a response to the penetration of the farmers into the Thukela Basin. A third possibility, is that these changes have been influenced by both these phenomena. This issue is discussed further in the following chapter which deals with the last two thousand years of Thukela Basin hunter-gatherer history.

CHAPTER 7

THE LAST TWO THOUSAND YEARS OF HUNTER-GATHERER
OCCUPATION OF THE THUKELA BASIN

About 1500 to 2000 years ago, iron producing farmers entered the central Thukela Basin and thus changed the course of hunter-gatherer historical development. This chapter concerns the period from this arrival up to about AD 1800. The tragic demise of the Drakensberg San hunter-gatherers between 1840-1870 has been dealt with by Wright (1971).

This period of hunter-gatherer history must be analysed in the context of hunter-gatherer/farmer interactions. Farming community sites are highly visible. Extensive projects on the early farming communities of the central and lower Thukela Basin have been undertaken, but only the former have been published (Maggs 1980a, b, 1984a, b, c; Maggs & Michael 1976; Maggs & Ward 1984). These data generated by this project enable us to move beyond a purely hypothetical understanding of early hunter-gatherer/farmer relations. The paucity of research on farming communities after AD 1000, however, hinders our analysis of the AD 1000 - 1800 relationship between these groups. Hunter-gatherer occupation of the research area persisted into the colonial era, but, as will be submitted, was not geographically and temporally uniform.

Situations probably existed during the last 2000 years where farmers who lost their livestock and/or suffered severe

crop losses adopted a hunter-gatherer mode of subsistence. Moreover, there probably were hunter-gatherers who acquired stock. Nevertheless, it is arguable that hunting and gathering and farming themselves persevered as essentially distinct, and archaeologically recognisable, modes of subsistence until relatively recently, as is attested by excavation results and written records.

Increasing humanities research, including that of archaeology, has focused on inter-group relations, and has generated a variety of definitions of 'frontier' situations. Some of these have been applied to southern African pre-colonial and early colonial contexts (Alexander 1984; Smith, A.B. 1985). Alexander (1984) has defined 'moving' and 'static frontiers'. 'Moving frontiers' represent the period when farming communities were still expanding into areas previously uninhabited by them, and 'static frontiers' when these 'moving frontiers' had halted and hunting and gathering groups still existed inside and beyond them. Alexander's (1984) bases his analysis of inter-group relations on ecological and economic parameters. In the southern African context, Alexander (1984) suggests that the 'moving frontier' ended around the middle of the first millennium AD and that from then until the arrival of the Europeans after AD 1500, a 'static frontier' ensued. He also (1984) argues that relations between hunter-gatherers and farmers would have been good during the initial period of the 'moving frontier', but thereafter they would have deteriorated as the farmers entrenched themselves.

Thompson & Lamar (1981), operating in a post-colonial context, have defined 'open' and 'closed frontiers': 'The

frontier "opens" in a given zone when the first representative of the intrusive society arrives: it "closes" when a single political authority has established hegemony over the zone" (Thompson & Lamar 1981:7). Thompson & Lamar (1981) recognised three essential elements in any set of interactions; firstly, territory; secondly, two or more initially distinct groups, for example, societies with differing technological and subsistence capabilities, social and political organisation and belief systems; and thirdly, the "process by which the relations among people in the territory begin, develop, and eventually crystallize" (Thompson & Lamar 1981:8).

These 'frontier' models are inadequate theoretically and in terms of their practical applicability to the Thukela Basin. Alexander's (1984) analysis of the relationship between people solely in economic and ecological terms and essentially ignoring social and symbolic parameters, denies a crucial element in any set of human interactions. Moreover, his application of the 'moving' and 'static frontiers' model to southern Africa, namely regarding the AD 500 - 1500 period as static, shows a remarkable lack of understanding and knowledge of the known changes that typified the farming communities during this period. For example, significant movements of farming people occurred in the Thukela Basin during this time (Maggs 1980b, 1984b).

Thompson & Lamar's (1981) definitions of 'open' and 'closed frontiers' are so broad and all-embracing that their explanatory potency must be called into question. These 'frontier' definitions were devised to understand post-European colonial interactions in America and South Africa, and their

applicability to pre-colonial situations, and in particular hunter-gatherer/farmer relations, is not considered satisfactory. However, unlike Alexander (1984), Thompson & Lamar (1981) have recognised the significance of social and political parameters when considering inter-group interactions. Both sets of definitions can also be criticised on the score that they tempt other researchers to categorise their observations according to given schemes, and this serves to mask the true nature and subtlety of interactions.

The approach favoured here and consistent with the aims of this study (see Chapters 1 and 3), is that individual historical situations should be documented and explained in all their complexity, without reference to predetermined interaction schemes. After studying inter-group relations in East Africa, Hodder concluded that:

"We cannot erect any simple correlation between resource distribution, material culture patterning and degrees of economic competition. Economic competition may encourage cultural distinctiveness, but equally, particular conceptual and social dispositions may encourage particular forms of economic and cultural strategy. The distribution of resources is only one of the relevant variables when the explanation of regional material cultural patterning is being considered" (Hodder 1982:103).

Furthermore, Hodder argued that ecological or behavioural approaches which accept

"Straightforward relationships between material cultural boundaries and competition, interaction or ethnicity is inadequate. Any such relationship in a particular case depends on prior analysis of the internal organisation of social relations and of concepts of symbolism" (Hodder 1982:188).

This approach has numerous advantages over that of

Alexander (1984) and Thompson & Lamar (1981). In particular, while no classificatory schemes are prescribed, there is a framework within which to develop an understanding of inter-group relations. Furthermore, social and symbolic factors are accorded central roles in the interpretation of inter-group relations.

Hereafter the periods before and after AD 1000 are dealt with separately.

PRE-AD 1000

I shall first investigate social relations and symbolism before discussing site distribution, resource and subsistence strategies and material culture patterning. These will be followed by a general discussion.

Social relations

Hall (1987 in press), placing both the hunter-gatherer and farming communities before AD 1000 within the Primitive Communist Mode of Production, argues that,

'in the crucial arena of the relations of production, patterns of distribution and the consequent relations of obligation [in farming and hunter-gatherer societies] may have been structurally more similar than dissimilar, allowing in turn patterns of interactions across open frontiers rather than rigid distinctions between technological ages or indeed between discrete cognitive systems that have been stressed in other interpretations' (Hall 1987 in press).

Hall's innovative understanding of the social strategies among early farming communities and the implications of these for hunter-gatherer/farmer relations is of great pertinence.

However, Hall fails to address the critical issue of gender relations. In Chapter 6, it was argued that a form of real male dominance typified early Thukela Basin hunter-gatherer society but thereafter women improved their status and by 2000 BP women might either have attained parity with their male counterparts or mythical male dominance existed. Detailed comment on the position of early farming community women requires analysis beyond the scope of this study. Significantly though, this society was newly arrived in the area and, as discussed in the previous chapter, women's status in migrant societies tends to be devalued (Sanday 1981).

Symbolism

Establishing the symbolic characteristics of these groups is an even more difficult and elusive task than illuminating social relations. Nevertheless, some comments are feasible. While doubt has been cast (see Chapter 3) on Lewis-Williams's (1984) arguments for hunter-gatherer ideological continuity spanning the last 26 000 years, his (1981, 1985) submission that the paintings of the recent San and their not too distant predecessors are a concrete expression of their symbolic systems and are associated with trance performance and trance vision, is not in question.

After outlining the role that ceramics and ceramic decorative style may have played in the early farming communities, Hall concludes that, "Such a system of signification through ceramic design would be precisely analogous to, and to a large degree contemporary with, the system of signification

through rock art" (Hall 1987 in press). If, indeed, the hunter-gatherers and farmers used and expressed symbols in comparable ways in signifying social relations, then, no doubt, these would have functioned as positive catalysts in their interactions.

Site distribution

Fig. 7:1 illustrates the spatial and temporal distribution of hunter-gatherer sites during the last 3000 years. Unlike the situation before 2000 BP, there is clear evidence that the hunter-gatherers occupied the central Thukela Basin after 2000 BP. Moreover, there appears to be a decrease in hunter-gatherer occupation of the Thukela Basin upper and upper/central regions between AD 400 and 1000. The Clarke's Shelter date of 1580 BP (AD 370) was obtained from close to the surface. The Driel Shelter 1775 BP (AD 175) date derived from the level second to the bottom. An occupation hiatus between this level at Driel Shelter and the overlying level, is suggested by the absence in the former and presence in the latter of glass beads. The Nkupe Shelter, Diamond 1 and Sikhanyisweni Shelter (superficial) upper levels all contained pottery, but it is impossible to date them securely. Mgede Shelter contained no AD 100 - 1000 deposits, and although Gehle Shelter produced an AD 670 date, it has been argued (Mazel 1984a) that this occupation was ephemeral. Of note, is that Gehle Shelter and Sikhanyisweni Shelter are the closest sites to Mbabane Shelter and thus the thornveld region. Though inconclusive, current data suggest that there may have been an early first millennium movement of

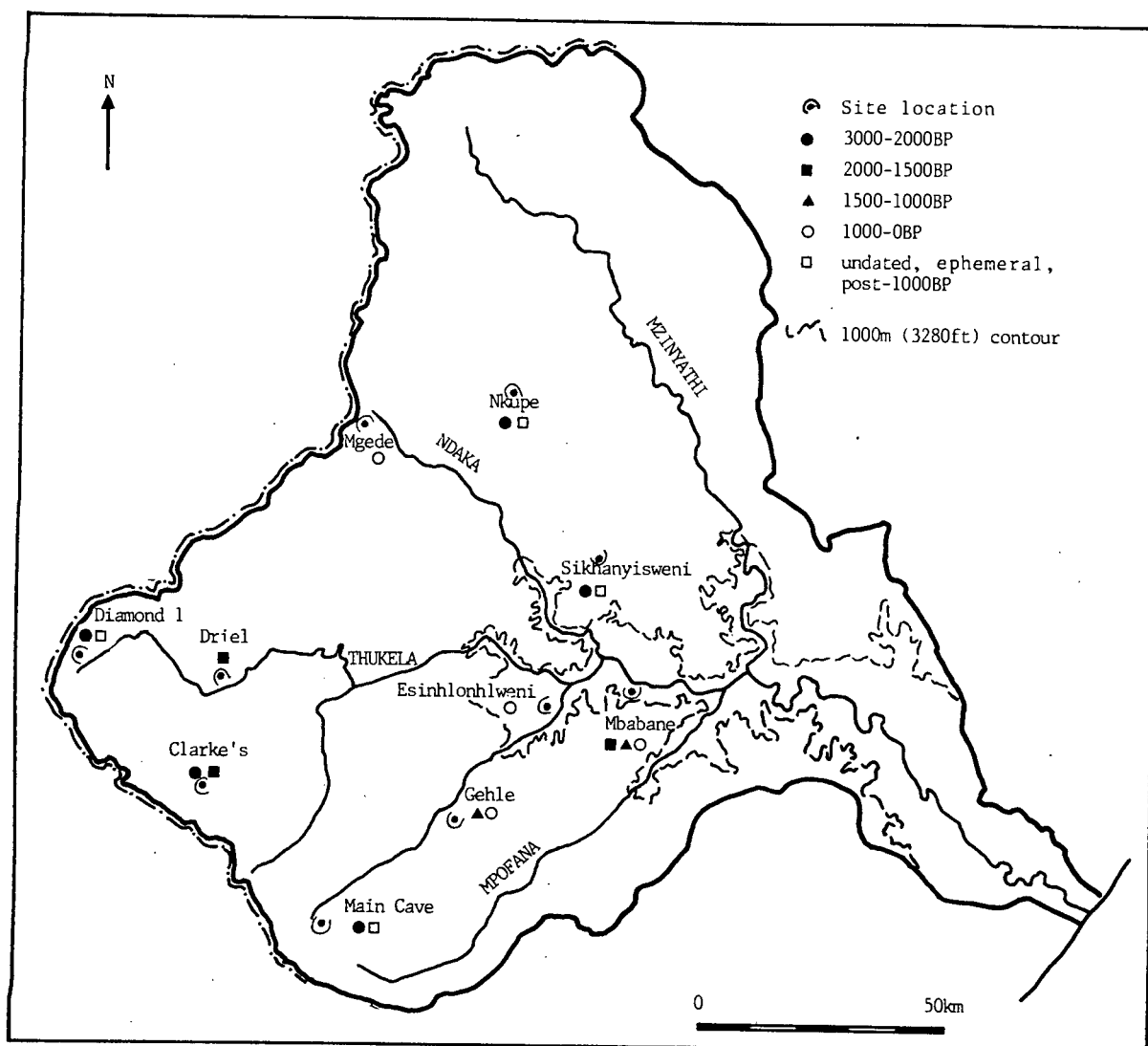


Fig. 7:1 Thukela Basin: the temporal and spatial occupation of hunter-gatherer sites during the last 3000 years. Except for one known site, all the pre-AD1000 farming community sites occur below 1000 metres (3280 feet).

hunter-gatherers from the montane and grassland regions to the thornveld region occupied by the farmers.

Resources and subsistence

Clarke's Shelter and the Driel Shelter lower deposits produced no plant food remains. The Clarke's Shelter and the Driel Shelter basal faunal assemblages are dominated by small and small/medium non-migratory bovids while the Driel Shelter AD 175 assemblage is dominated by large and large/medium bovids.

The Mbabane Shelter faunal and plant food assemblages are overwhelmingly dominated by wild species, with the only domestic type recovered (in small quantities) being Sorghum sp. At the Msuluzi Confluence (Maggs 1980a), Magogo (Voigt 1984), Ndondondwane (Voigt & Von Den Driesch 1984) and Ntshekane (Maggs & Michael 1976) farming community sites, on the other hand, faunal assemblages are dominated by domestic stock and, where preserved, both domestic and wild plant foods are represented. These data provide support for an earlier suggestion that two distinct modes of subsistence, associated with distinct types of habitation sites, existed in the central Thukela Basin before AD 1000. It is possible that hunter-gatherers resided temporarily on farming villages and during this time adopted the prevalent subsistence scheme and vice versa, but it is clear that these modes of subsistence persisted as distinct entities through to colonial times.

The central Thukela Basin subsistence data suggest little, if any, competition between hunter-gatherers and farmers for natural resources. The range of antelope taken by the

pre-1500 BP central Thukela Basin hunter-gatherers, if indeed hunter-gatherers occupied this area then, is unknown. It is noteworthy though, that at Mbabane Shelter as well as the other Thukela Basin sites, save Diamond 1 (Mazel 1984b) and Driel Shelter (Maggs & Ward 1980), the bovid assemblages are dominated by small and small/medium types. It is unlikely that the presence of domestic stock would have significantly influenced the composition of the bovid population. Although the overall bovid population may have been reduced, it must be remembered that large tracts of land between villages and on the thornveld margins not settled by the early farming communities, would have been accessible to bovids (Maggs pers. comm.).

The lower Mbabane Shelter plant food assemblages are small. But, if the overlying assemblages are anything to go by, then there would have been minimal overlap between the plants exploited by the hunter-gatherers and farmers. More hunter-gatherer assemblages are required to secure this point though.

The subsistence implications for the introduction of pottery have generally been ignored by researchers who have tended to use this phenomenon as an indication of cultural change. For the first time, hunter-gatherers had access to heat resistant containers in which they could boil food. I cannot assess here in detail which additional plants would have been available to hunter-gatherers with pottery, but it is likely to include a considerable number. In this respect, it is interesting to note that 26% and 21% of the plants identified at the post-2000 BP sites of Mbabane Shelter and eSinhlonhlweni

Shelter respectively, can be used as spinach (Mazel 1986b). This contrasts with the pre-2000 BP Mgede Shelter and Nkupe Shelter assemblages, where only 14% of the plants identified can be used as spinach.

Current evidence suggests that the Thukela Basin hunter-gatherers had pottery at least 500 years before the arrival of the farmers in the central Thukela Basin (Mazel 1984b). Thus, it is possible that the plant subsistence base of the hunter-gatherers may have been considerably enlarged before the arrival of the farmers. This may have influenced a reduction in conflict over plant food resources between the groups.

Material culture

The following discussion is premised on the earlier conclusion that whether intentionally or not, material culture acts as a signifier of social relations. Different types of material culture may have been instrumental in signifying hunter-gatherer and farmer relations, these include OES pieces and beads, marine shell and marine shell beads, pottery, worked bone, iron and stone artefacts. Analyses of the distribution of these items provide insights into hunter-gatherer/farmer relations as well as changing hunter-gatherer social relations.

The question of how we know that items of material culture historically associated with one group, but found on the sites of another group, were not manufactured by the group on whose sites they were recovered, should be briefly considered. Unlike ethno-archaeological situations, where we can observe the movement of items between groups, this information will in most,

if not all, cases be archaeologically irretrievable. However, it is submitted that the mere presence of items of material culture historically associated with one group, on the sites of another group, is crucial in signifying the nature of their relations. This is despite the fact, that we may never be able to say with certainty who manufactured these items.

OES pieces and beads. These items were associated with hunter-gatherers in the Ndaka and Toleni social regions. OES beads, but not OES pieces, first appears in the Injasuthi social region immediately after 2000 BP. The OES bead recovered from the surface of Diamond 1 cannot be dated precisely, but the Driel Shelter 1775 BP (AD 175) level produced 15 beads and the underlying, undated, level three.

OES pieces and beads occur in small quantities on the sites of the central Thukela Basin farmers and hunter-gatherers. No OES pieces were recovered at Mbabane Shelter but two pieces were found at Ndondondwane (Maggs 1984a) and an unspecified number at Ntshekane (Maggs & Michael 1976). All five beads recovered from Mbabane Shelter were OES. At the early farming community sites, on the other hand, OES beads comprises between 6-11% of the beads, the rest are Metachatina sp.

OES recovered from the central Thukela Basin sites most likely originated from the plains west of northern Natal, the nearest natural source. As the early farmers were confined to the thornveld, the OES recovered from their sites was probably introduced into this area by hunter-gatherers. Moreover, as no evidence exists for the local manufacture of beads, they probably

arrived as finished products.

Maggs & Ward (1980) observed that several Driel Shelter OES beads displayed localised wear in the form of two lines diametrically opposite each other, running from the hole towards the outer edge. They suggest that these beads would not have been strung in a row on a single string, but would have been strung in an alternating 'brickwork' pattern, as is known from headbands or stitched onto fabric (Maggs & Ward 1980). Beads of this nature, occur only within the last 2000 years. At Nkupe Shelter and Sikhanyisweni Shelter they were recovered from the undated pottery levels and at Mgede Shelter from the uppermost level, dated to ca 120 BP. It has not been specified which levels they derive from at Driel Shelter but the majority of the beads are in the AD 175 and succeeding levels (Maggs & Ward 1980). This innovation in bead work styles represents a significant departure in decorative styles, the full implication of which will be elaborated later.

Iron. All the early farming sites excavated in the central Thukela Basin had evidence of iron production. At Msuluzi Confluence, iron working was carried out on a considerable scale and probably in excess of local demand, especially as neighbouring villages probably supplied their own iron (Maggs 1980a). Maggs has suggested "that any excess production was probably intended for non-smelting communities such as the hunter-gatherers of the grasslands to the north and west" (Maggs 1980a:138). No iron or slag was recovered from the early Mbabane Shelter levels, which produced pieces of iron ore.

Marine shell and marine shell beads. With the exception of

the possible Nkupe Shelter 6650 BP marine shell, these items occur on hunter-gatherer sites only after 2000 years ago, thus chronologically coinciding with the presence of farmers in Natal. During this time they occur on hunter-gatherer sites from the thornveld through to Lesotho.

Clarke's Shelter produced no marine shells, but the Driel Shelter AD 175 level produced a cowrie (Cypraea felina) pendant (Maggs & Ward 1980). Elsewhere in Natal, two drilled shells (one Nassarius kraussianus and one Conus piperatus) were recovered from Good Hope Shelter Layer 1 in the southern Natal Drakensberg (Cable et al 1980). This layer is undated but the top of Layer 2 dates to 2160 BP. In eastern Lesotho 27 Nassarius kraussianus shells and one each of Cypraea tigris, cf. Turritella carinifera and Trachycardium rubicundium were recovered from the Sehonghong ca AD 500 level (Carter 1978).

Marine shells were recovered from most of the farming community sites as well as Mbabane Shelter, being more abundant at the latter site. Nassarius kraussianus is the most common type of shell recovered from Mbabane Shelter (Mazel 1986b). One cowrie was recovered from Msuluzi Confluence (Maggs 1980a); one Mondonta australis and one Nassarius kraussianus from Magogo (Maggs & Ward 1984); and two Patella sp., one Fissurella natalensis and one Nerita sp. from Ndongondwane (Maggs 1984a).

Pottery. Mbabane Shelter produced decorated pottery identical to the AD 450-700 farming community pottery. While previously this may simply have been taken as evidence for

inter-group contact, it assumes added significance in the light of Hall's (1987 in press) remarks on the symbolic role of pottery in early farming communities: "By exchanging cereal products in vessels similarly decorated with potent symbols, householders would simultaneously signify and reaffirm their mutual connectedness" (Hall 1987 in press). While it is impossible to say whether 'symbolic' pottery moved both ways, it is submitted that its occurrence at Mbabane Shelter can be taken as an active signification of the relations between these groups.

The pottery recovered from Clarke's Shelter (Mazel 1984b) and Driel Shelter (Maggs & Ward 1980) is unlike the pottery used by the early farming communities.

Worked bone. Worked bone was recovered from all the hunter-gatherer and early farming community sites. Maggs (1980a, 1984a) has noted the similarity between the bone tools recovered from the different sets of sites, especially the points and linkshafts. At Ndondondwane, the only farming community site to produce a quantifiable worked bone assemblage, the majority of artefacts were either points or linkshafts, followed numerically by awls, spatulae and a variety of ground and faceted pieces. Thus resembling the composition of the Mbabane Shelter worked bone assemblage (Mazel 1986b).

As with the marine shells, faceted bones only occur after 2000 BP and then are on both hunter-gatherer and farming community sites. In the hunter-gatherer context they were recovered from the Driel Shelter AD 175 and overlying levels, the uppermost level at Nkupe Shelter, and after AD 1000 at Mgede Shelter and Mbabane Shelter. As Maggs & Ward (1980) have

suggested, faceted bones probably represent a stage in the manufacture of ground bone. Their occurrence only after 2000 BP is of added interest however. A possible explanation is that, in the hunter-gatherer context, they are associated with the acquisition and use of iron products (Mazel 1986a).

Stone artefacts. Comparison of the ca 2000 BP Driel Shelter, Clarke's Shelter and Mbabane Shelter formal tool assemblages highlight some spatial and temporal distribution patterns.

The Clarke's Shelter and Driel Shelter backed piece assemblages are too small to allow for meaningful comparison with Mbabane Shelter, but, of interest, is that both Driel Shelter and Clarke's Shelter produced a segment. No segments were recovered from the Diamond 1 and Clarke's Shelter 3000 - 2000 BP levels. The Mbabane Shelter backed piece assemblages are dominated by points and blades with few segments represented.

Scraper backing was not recorded for Driel Shelter (Maggs & Ward 1980). The Mbabane Shelter backed scraper assemblage differs from the Clarke's Shelter assemblage. Scrapers backed across from the working edge are absent from the latter two sites but comprise 20% of the Mbabane Shelter backed scrapers. All but one of the remaining eight Mbabane Shelter backed scrapers are backed along only one of the sides perpendicular to the scraping edge, whilst at the other two sites there is a more even distribution of scrapers backed along one or two laterals perpendicular to the working edge.

Driel Shelter's mean adze lengths, 16 and 19 mm for the Older Ash and Chestnut Soil levels respectively, are clearly distinct from the other sites whose mean lengths exceed 39 mm.

The Mbabane Shelter adze mean lengths, 45 and 52 mm, and are longer than the Clarke's Shelter means, 39 and 43 mm, but not by much.

The Driel Shelter CCS, Mbabane Shelter quartz and Clarke's Shelter CCS mean scraper lengths vary between 16 and 21 mm.

The raw material composition of the Clarke's Shelter formal tool assemblages are overwhelmingly dominated by CCS, which comprises greater than 95%. CCS also dominates the Driel Shelter formal tool assemblages, but hornfels is better represented comprising 16 and 24 % of the Older Ash and Chestnut Soil scraper and adze assemblages respectively. All the Mbabane Shelter adzes are hornfels, but the scrapers and backed pieces, while dominated by hornfels (over 80%) are also made out of CCS and quartz. Quartz was, however, preferred to CCS in the manufacture of backed pieces and scrapers at Mbabane Shelter.

In summary, the Clarke's Shelter, Driel Shelter and Mbabane Shelter artefact assemblages clearly display some similarities with each other, but differences are also evident. The differences are not only between the geographically close sites of Clarke's Shelter and Driel Shelter on the one hand and Mbabane Shelter on the other, but also between Clarke's Shelter and Driel Shelter.

Stone artefacts occur on most early farming community sites, but establishing whether they are associated with the farming occupation or whether they belong to unrelated hunter-gatherer occupations is near impossible. Maggs (1980a) believes that the Msuluzi Confluence stone artefact assemblage,

29 hornfels formal tools (mostly scrapers), is contemporary with the farming community occupation. A grooved stone which may have been used for straightening arrow shafts was also recovered from Msuluzi Confluence (Maggs 1980a). A similar artefact was recovered from the Nkupe Shelter 3190 - 2480 BP level, about 65 km to the north.

A talc schist fragment of what was probably an open bowl was recovered from the Driel Shelter AD 175 deposits and a single piece of soapstone was recovered from the upper layer at Sikhanyisweni Shelter, and may postdate 2000 BP. No soapstone or talc schist was recovered before 2000 BP. The nearest talc schist source to Driel Shelter, which is on the Thukela River, is some 160 km downstream. The closest source of soapstone to Sikhanyisweni Shelter is on the banks of the Thukela River about 35 km to the south. Pieces of talc schist and soapstone were recovered from the farming community sites of Msuluzi Confluence (Maggs 1980a) and Ndondondwane (Maggs 1984a). A similarity has also been noted between broken spatulae made from soft sedimentary rock recovered from the Msuluzi Confluence and the Driel Shelter AD 175 level (Maggs 1980a).

Discussion

The preceding section concentrated on social relations, symbolism, subsistence strategies and resource distribution, and the material culture remains of the hunter-gatherer and farming communities. I suggest that these groups would not have been socially and economically antagonistic. On the contrary, it

would seem that there was great potential for them to have enjoyed close and amicable relations. That this was indeed the case is supported by the material cultural patterning. Items historically associated with hunter-gatherers, such as worked bone, stone tools, OES pieces and beads are found on farming community sites, whilst farming community decorated pottery and iron ore have been recovered from Mbabane Shelter. The presence of talc schist and soapstone, which derives from the heart of the early farming community area, on hunter-gatherer sites as well as the similar stone spatulae from Driel Shelter and Msuluzi Confluence, provide added support for the material cultural connection between the groups and thus, by implication, their social connection. Though no direct evidence exists that the hunter-gatherers had access to iron, circumstantial evidence is provided by the presence of faceted bone and the decrease in adze proportions. Finally, the site distribution data, though not conclusive, suggest that the central Thukela Basin may have been unoccupied prior to the arrival of the farming communities and thereafter became a focus of hunter-gatherer settlement. Furthermore, it would appear that parts of the upper and central Thukela Basin were simultaneously depopulated by hunter-gatherers.

Considering the foregoing discussion, it appears unlikely that the hunter-gatherers would have entered into a clientship relationship as observed between farmers and hunter-gatherers during colonial times, but that their relationship would have been on a more equitable footing. Furthermore, it would seem that while economic symbiosis may have formed part of their

relationship, it was only one of the factors, and perhaps even a minor one, influencing the nature of their overall relationship.

What then was the nature of their relationship ? It has been submitted (Chapter 3) that social production and reproduction form the basis of human society and moreover that before 2000 years ago the Thukela Basin hunter-gatherers would have achieved this by being linked in a series of alliance networks. Now, if, as has been argued, hunter-gatherers and farmers established equitable, close and harmonious relations, which were partly due to their compatible social strategies, could it be that they established social alliances, which were in some respects comparable to those existing in hunter-gatherer society before 2000 BP ? This, in turn, may have precipitated intermarriage between these societies. That intermarriage occurred between these societies at some time in the past is strongly supported by genetic and physical anthropological studies (De Villiers 1968; Jenkins 1982).

Jenkins remarked that the 'distribution [of alleles] provides ample confirmation of the claim ... on the basis of Gm polymorphism in southern Africa [Jenkins et al 1970] that it was in the eastern half of the subcontinent that the Khoisan people were encountered and assimilated in large numbers by the southward moving Bantu-speaking pastoralists/agriculturalists' (Jenkins 1982:237). Although Jenkins's data clearly indicates that intermarriage occurred and he suggests on a large scale, as he suggests, he has not provided any indication of when this occurred. Support for intermarriage is also provided by De Villiers's (1968) physical anthropological research:

"From the percentage distribution of the afore-mentioned cranial characters, both metrical and non-metrical, it is clear that the South African Negroes show a relatively high incidence of features which characterise the Bushman [San] and Hottentot [Khoi] peoples. The tribal distributions show that both Nguni groups have the highest incidence of Bush features, namely 20,0 per cent in the Natal Nguni males and 24,0 per cent in the Cape Nguni males and 25,8 per cent in the females, the incidence in these groups being only slightly higher than in the Sotho (18,2 per cent males and 22,0 per cent females" (De Villiers 1968:197).

Fuze, born in 1840 and writing in Natal shortly after the turn of the century, commented on the 'Bushmen' (San hunter-gatherers) that, "Their disappearance in this part of the country was due to intermarriage with our people, leading them to become taller, although some remained short as with all people, but they ceased to be Aboriginal Bushmen" (Fuze 1979:3). This account, along with Fuze's other comments on the San hunter-gatherers, cannot be accepted uncritically because we don't know whether his information is based solely on oral tradition and/or his own experiences, or whether he was influenced by white historians and commentators of the day. But, at the same time, his comments cannot be dismissed out of hand.

The foregoing evidence is consistent in supporting the idea of intermarriage on a large scale between the hunter-gatherers and farmers, but they all share the same shortcoming of not providing any indication of the time-depth involved. Human skeletal remains which could have provided information on this problem have not been recovered from hunter-gatherer contexts and only in negligible quantities from farming community sites.

If the farmers and hunter-gatherers were indeed linked in

alliance networks, this would raise new questions. While the two groups obviously had a general response to each other, we would need to investigate at what level the interactions were enacted; for example, were they conducted through individuals, families or larger groups? An interesting observation in this respect, is that Msuluzi Confluence, the only site for which Maggs (1980a) has suggested surplus iron production, contains a concentration of formal stone tools. Is this a mere coincidence, or are these phenomena related? This question along with others raised earlier can only be answered by more theoretical and fieldwork research.

Thus far the relationship between the groups has been stressed, as any understanding of this period of hunter-gatherer history must be seen in the context of this interaction. While it appears that hunter-gatherer technology and subsistence strategies more or less remained intact and that the hunter-gatherers and farmers may have established close reciprocal bonds, perhaps even that of intermarriage, it is also possible that their interactions produced tensions and contradictions within hunter-gatherer society which, in turn, precipitated social adjustments.

We need to investigate the impact of these interactions on the structural development of hunter-gatherer society, remembering that it was submitted in Chapter 5 that between 4000 and 2000 years ago three social regions existed in the upper and upper/central Thukela Basin. These regions were distinguished primarily on the basis of material cultural patterning. A comparison of the material culture and site distribution

patterning before and after 2000 BP, show substantial changes between these periods. Firstly, it would seem that the Ndaka, Toleni and Injasuthi social regions disintegrated. Furthermore, it would also appear that there was a movement of hunter-gatherers from these regions into the central Thukela Basin where the farming communities had established themselves.

The two post-2000 BP sites in the area of the Injasuthi social region produced OES remains, an area from which no OES whatsoever was recovered before 2000 BP. An OES bead recovered from the Diamond 1 surface postdates 2000 BP but may date within the last millennium. At Driel Shelter, on the other hand, the AD 175 deposits produced 15 beads. Of further interest is that OES beads displaying wear lines were recovered from Driel Shelter, Nkupe Shelter and Sikhanyisweni Shelter, each located in the areas of differing 4000 - 2000 BP social regions. Unlike the situation before 2000 BP where the paucity of worked bone distinguished the Injasuthi regions from the others, after 2000 BP, Driel Shelter has a relatively large worked bone assemblage (Maggs & Ward 1980) and for the first time Clarke's Shelter produced worked bone. Faceted bone was recovered from after 2000 BP at Driel Shelter, Mbabane Shelter and Nkupe Shelter as well as at Mgede Shelter shortly after AD 1000. The widespread distribution of marine shell after 2000 BP also points to changing hunter-gatherer social strategies. The marine shell may have initially derived from the farming communities. However, as the early farming communities were settled in the central Thukela Basin (Fig. 7:1), the presence of marine shell further inland is most likely due to its movement between hunter-gatherers. With

the exception of the possible Nkupe Shelter 6650 BP marine shell, no marine shell was recovered from before 2000 BP. Thereafter however, it occurs on sites from the thornveld through to eastern Lesotho, and, as with the OES beads showing wear, marine shell occurs on sites located in the areas of the differing 4000 - 2000 BP social regions. A further indication of widespread contact between people in the different regions of the Thukela Basin, is the presence of soapstone at Sikhanyisweni Shelter and talc schist at Driel Shelter.

Although the information presented above and the stone artefact data presented earlier, need to be supplemented by more observations, it is tentatively suggested that the Injasuthi, Ndaka and Toleni social regions were not maintained after 2000 BP and that they were replaced by one, more extensive, region. It seems too, that the hunter-gatherers occupied the central Thukela Basin which, it appears, was not previously inhabited. One potential problem with this interpretation, however, concerns our understanding of the Driel Shelter and Clarke's Shelter material cultural patterning.

As mentioned at the end of Chapter 6, we cannot be completely sure whether these patterns result from; firstly, social and economic processes experienced by Thukela Basin hunter-gatherer society unconnected to the penetration of farmers into this area; secondly, the presence of the farmers; or, thirdly, a combination of these factors. The talc schist bowl at Driel Shelter as well as the spatula at this site, which resembles one from Msuluzi Confluence, and the faceted bone artefacts suggests contact with the farmers, whilst the

distribution of OES beads and marine shells suggests widening contacts among the hunter-gatherer communities. These observations would tend to support the third possibility. It is not inconceivable that while the hunter-gatherers established close reciprocal bonds with the farmers, they also felt the desire to strengthen and widen alliance networks to ensure social and biological reproduction.

Another potential area of social change was in male-female relations. What would the impact have been on these relations if, say farming community women were of low status and the male farmers insisted that the farmers contact with the hunter-gatherers be conducted through men? The technological impact of the introduction of iron into hunter-gatherer society has been considered (Maggs 1980a; Mazel 1984c, 1986a), but it is also necessary to investigate the consequences of this phenomenon for male-female relations, especially if, at the beginning of the contact, iron was a scarce resource. In the Kalahari today, iron tools are used by hunter-gatherer men and women, but, as there is a surplus of iron, no conflict ensues over access to iron tools (Lee 1979). Given a scarcity of iron, however, it is possible that access to iron was controlled by men, and that this served to symbolise their enhanced status achieved by their contact with farmers. Of interest, is that Wiessner (1984) notes that the elaboration of beadwork which has occurred among some Kalahari hunter-gatherers is partly a response to women's decreasing status through their interaction with farmers. Could this explain the emergence of a new beadwork style among the

hunter-gatherers after 2000 BP ?

Even if the tentative suggestion of hunter-gatherer women losing status due to their contact with farming communities is incorrect, it nevertheless is of significance because it draws attention to one of the major areas where future studies of hunter-gatherer societies should be focused - gender relations in contact and post-contact situations.

AD 1000 - 1800

After AD 1000, the farming communities expanded geographically and by the thirteenth century were settled close to the Drakensberg foothills. Thereafter, these communities occupied the entire research area, excluding the Drakensberg. Hunter-gatherers inhabited the entire research area during this period. Thus, unlike the situation before AD 1000, when the hunter-gatherer/farmer interaction was restricted to the central Thukela Basin, after AD 1000 almost the entire research area becomes the stage for their contact.

Our comprehension of the post-AD 1000 hunter-gatherer/farmer relations is hampered to a greater degree than before, by a lack of information, especially on the farming communities. Only three post-AD 1000 farming community sites have been excavated in the research area, each dating to a different period. Nevertheless, the information generated by these excavations, and the hunter-gatherer rock shelter excavations is instructive. Moreover, the site distribution

patterns and comparison of social relations and nature of symbolic expression sheds some light on farmer/hunter-gatherer relations.

As in the previous section, social relations, symbolism, site distribution, resources and subsistence and material cultural patterning are dealt with separately.

Social relations

All commentators agree that the economic and settlement changes that occurred among farming communities in southern Africa between AD 800 and 1100 were associated with adjustments in social relations (Hall 1986, 1987 in press; Huffman 1986; Maggs 1984c). More controversial, however, is the nature of these changes. Hereafter I rely on the conclusions reached by Hall (1986, 1987 in press), who has attempted to illuminate the changing social relations within the context of modes of production.

Hall (1987 in press) argues that between AD 800 and 1100, farming communities experienced a mode of production change from the Primitive Communist to the Lineade Mode of Production. Although these modes would not have been entirely dissimilar, some clear, and substantial, differences are evident. As Hall remarks, "it has been argued that dominance (control of surplus production) is not confined to relationships of prestation and redistribution within the domestic unit, but is rather at the scale of the lineage, and between dominant and dominated lineages" (Hall 1987 in press). The control of social relations

of production from beyond the unit of production is regarded as a crucial feature of this mode of production. Moreover, unlike the Primitive Communist Mode of Production, within the Lineage Mode of Production emphasis is shifted to a collective (i.e. the lineage) that may have no day to day existence.

Hall (1987 in press) argues that the transfer of accumulated surplus production from the household to the larger collectivity was of definitive importance, for this caused changes that ran through the whole fabric of society. Ingold has argued, however, that

"Only when man assumes custodianship of living nature is the social principle of sharing displaced by a principle of exclusive or divided access to resources. This, and not the mere practise of storage, introduces the possibility for hoarding and accumulation and underlies the emergence of social inequalities" (Ingold 1982:532).

Thus, following Ingold, it is the appropriation of "living nature" and not the mere accumulation of a surplus, that leads to the development of social inequalities. These explanatory differences require more deliberation. But, whatever the reason(s) for the development of social inequalities, this factor coupled with the other features of the Lineage Mode of Production, would have served to distinguish the hunter-gatherers, who are assumed to have maintained a Primitive Communist Mode of Production, from the farmers in a way that they were not distinguished before.

Thus, it is arguable, that the pre-AD 1000 social basis for close relations between these communities may have altered after AD 1000, and could have had a profound influence on the nature of their relations.

Symbolism

If Hall's (1987 in press) interpretation of the changing nature of symbolic expression associated with the farming community's switch from a Primitive Communist to a Lineage Mode of Production is correct, then it would have served to have further distinguished the farming and hunter-gatherer communities. Hall submits that

'an associated prediction would be that societies structured by the lineage mode had new forms of signifying relations of production. It was argued earlier that one of the key validations of ceramics as a system of signification was the association of pots with the redistribution of grain as a principle resource. Consequently, it can be anticipated that livestock would be central in a new system of signification' (Hall 1987 in press).

If indeed this was the case, and Hall feels there is good reason to believe so, then it is likely to have distinguished the farmers and hunter-gatherers.

Site distribution

After AD 1000 the farming communities expanded geographically and between AD 1300 -1800 they occupied the entire research area, except the Drakensberg. Insufficient knowledge, however, precludes discussion on whether they experienced more complex settlement patterns during this period. Excavated farming community sites include Moor Park, dated to the thirteenth and fourteenth centuries (Davies 1974), Mabhiya, dated to the seventeenth century (Maggs 1982b), and Mgoduyanuka dated primarily to the eighteenth century (Maggs 1982a).

Hunter-gatherers occupied the different regions of the

research area after AD 1000, but, as with the farming community, insufficient information prevents discussion on the finer details of their settlement patterning. Of interest, however, is that they appear to be better represented in the upper/central and upper Thukela Basin than in the preceding period. Mbabane Shelter dated to AD 1450 and after, and eSinhlonhlweni Shelter dated to after AD 1620 are situated in the central Thukela Basin whilst Gehle Shelter dated to AD 1200, Mgede Shelter dated to AD 1130 and ca AD 1820 and Driel Shelter the upper levels of which are undated, are situated in the upper/central and upper Thukela Basin. Sikhanyisweni Shelter, Nkupe Shelter and Diamond 1 may also have been ephemerally occupied after AD 1000. The Gehle Shelter AD 1200 occupation was also probably ephemeral (Mazel 1984a). It is impossible to provide a definite date for the post AD 1000 Driel Shelter deposits, but the presence of glass bead suggests that some of them are relatively recent.

Resources and subsistence

Mgoduyanuka (Maggs 1982a; Plug & Brown 1982) and Moor Park (Davies 1974) provided information on the farming community subsistence strategies. The only food remains recovered from Moor Park though, were of a young buffalo and a young cow (Davies 1974). Moor Park produced numerous grindstones and this provides circumstantial evidence for plant processing. There is also a suggestion that sorghum impressions are visible on two sherds (Davies 1974). At Mgoduyanuka, however, fragments of carbonized maize cobs (Zea mays) were recovered and the faunal assemblages (total MN1 = 69) are dominated by domestic animals,

which comprised 72% of the MN1's and 98% of the community's meat (Plug & Brown 1982).

The hunter-gatherer faunal and plant assemblages, on the other hand, are overwhelmingly dominated by wild species. The only positively identified domestic animal is a sheep/goat from the Mgede Shelter ca AD 1820 level, while it is possible that a cow is represented in each of this site's AD 1130 and ca AD 1820 levels. The Driel Shelter surface deposits and Upper Occupation layer provided domestic plant remains in the form of small quantities of Lagenaria siceraria (gourd) and Sorghum caffrorum. Mbabane Shelter was the only other site to produce domestic plant remains. The AD 1450, and overlying, deposits produced Lagenaria sp. and Sorghum sp. However, combined they represent less than 4% of the frequency and mass of the botanical assemblages.

Available evidence thus suggests that the AD 1000 - 1800 hunter-gatherer economy was based on wild fauna and plants, while the farming community economy was essentially domestic. It is possible, of course, that hunter-gatherers lived for short, or more extensive, periods in farming community villages and while there, lived on domestic foods, and vice versa if farmers joined up with hunter-gatherer groups.

The introduction of maize into Natal in about the sixteenth century is of great significance, as it may have substantially altered the plant component of the farmer's diet.

The effect that the growing number of cattle had on the wild bovid population, and thus their availability to hunter-gatherers, is impossible to discern at present. An

extensive survey of the distribution and scale of farming community sites, followed by a simulation study of the number of cattle they may have kept and the possible effect of these on the wild bovid population, is required.

Material culture

OES pieces and beads. No OES pieces nor OES beads were recovered from the farming community sites and only the Mgede Shelter hunter-gatherer site produced pieces of OES. OES beads were recovered from the Driel Shelter Younger Ash occupation, the Mgede Shelter AD 1130 and ca AD 1830 levels, the Mbabane Shelter AD 1450 and overlying levels and, finally, all the eSinhlonhlweni Shelter levels except the upper level.

The Mgede Shelter AD 1130 levels and the Driel Shelter Upper Occupation and Younger Ash levels produced cane glass beads. Glass beads were recovered from the Mgede Shelter AD 1130 and ca AD 1830 levels, the Mbabane Shelter upper two levels, and the eSinhlonhlweni Shelter upper level. It is likely that the glass beads recovered from the Mgede Shelter AD 1130 level derived from an overlying level.

Metachatina sp. beads were recovered from all the eSinhlonhlweni Shelter levels, save the upper level, and there is possibly one from Moor Park (Davies 1974).

Iron. Small quantities of iron were recovered from all the hunter-gatherer and farming community sites. No patterning is discernible in the types of items recovered. Both hunter-gatherer sites (Mbabane Shelter and eSinhlonhlweni Shelter) and the Mabhiya iron-working site in the central Thukela

Basin produced slag , but none was recovered from the farming community and hunter-gatherer sites in the upper/central and upper Thukela Basin.

Marine shell and marine shell beads. Marine shell was absent from the farming community sites and Driel Shelter. A Nassarius krassianus shell recovered from the Mgede Shelter 4390 BP deposits probably derives from the overlying AD 1130 deposits (Mazel 1986a). The Mbabane Shelter AD 1450 and later deposits produced Nassarius krassianus, Perna perna and Polinices tumidus shells, whilst all the eSinhlonhlweni Shelter levels, save the lower level, produced Nassarius krassianus shells.

Pottery. Pottery was recovered from all the sites, but in substantially greater quantities from the farming community sites. The hunter-gatherer assemblages are too small to be adequately defined. The only excavated rock shelter layer to produce more than one hundred sherds was eSinhlonhlweni Shelter Layer 2 (211 sherds), whilst the total number of sherds recovered from the individual post-AD 1000 hunter-gatherer sites was Mbabane Shelter 204, Driel Shelter 103, eSinhlonhlweni Shelter 354, and Mgede Shelter 73. Mgoduyanuka, on the other hand, produced 4736 sherds (Maggs 1982a), but no figures are available for Mabhiya (Maggs 1982b) or Moor Park (Davies 1974).

Despite the inability to properly define this hunter-gatherer pottery, Maggs & Ward, discussing the Driel Shelter pottery, submitted that

"The affinities of the sample from the younger ash and upper occupation are essentially with the Late Iron Age [post-AD 1000 farming communities] ... As yet we know practically nothing of LSA ceramics in this region, but

it seems unlikely that they would resemble the Late Iron Age unless there was a direct connection" (Maggs & Ward 1980:60 & 61).

As the pottery from the other hunter-gatherer contexts resembles that of Driel Shelter, it is tempting to suggest that the above comments apply equally to them.

Worked bone. All the hunter-gatherer sites and Mgoduyanuka produced worked bone.

Unlike the earlier similarity between the Ndondondwane farming community and hunter-gatherer worked bone assemblages, the Mgoduyanuka assemblage, albeit small, is clearly distinct from more or less contemporary hunter-gatherer assemblages. Mgoduyanuka contains snuff spoons, bone (hair) pins, and perforated flat pieces (Maggs 1982a) - none of which is represented in the hunter-gatherer assemblages. A thin spatulae and bone scrapers for dressing skins were also recovered from Mgoduyanuka. Spatulae and a bone scraper were recovered from Mgede Shelter, but the Mgede Shelter scraper is quite different to the Mgoduyanuka specimens.

The hunter-gatherer worked bone assemblages are stylistically and compositionally similar to the pre-AD 1000 assemblages. All the hunter-gatherer sites, save eSinhlonhlweni Shelter, produced faceted worked bone, and fish hooks were recovered from Driel Shelter and Mgede Shelter.

Stone artefacts. No flaked stone artefacts were recovered from the farming community sites, all of which produced grinding stones. A grooved piece of sandstone (presumably for sharpening iron) and parts of two smoking pipes were recovered from Mabhiya.

The hunter-gatherer lithic assemblages display

interesting trends. Blades and points are the most common diagnostic backed pieces, but segments occur at all the sites. Ground stones appear, as in earlier times, to coincide with the presence of segments, and are represented at Mgede Shelter, Mbabane Shelter and eSinhlonhlweni Shelter. Scrapers backed along one or two laterals perpendicular to the working edge are most the common backed scrapers at all the sites, and scrapers backed across from the working edge are known only from Mbabane Shelter and eSinhlonhlweni Shelter.

The Mbabane Shelter and eSinhlonhlweni Shelter adzes whose mean lengths vary between 45 and 50 mm are longer than the Mgede Shelter adzes whose mean lengths are 38 and 40 mm. Similarly, eSinhlonhlweni Shelter and Mbabane Shelter hornfels scrapers, whose mean lengths vary between 24 and 33 mm, are longer than the Mgede Shelter hornfels scraper mean lengths which are 19 mm. The Mbabane Shelter quartz and Mgede Shelter CCS mean scraper lengths are similar, varying between 13 and 15 mm.

The Mgede Shelter raw material assemblages are dominated by hornfels, but CCS comprises about one fifth of them. CCS does not occur naturally north of the Thukela River, and thus the relatively large proportion of CCS suggests that the people occupying this site had regular contact with the area to the south. CCS was preferred in the manufacture of formal tools as it comprises a greater proportion of the formal tools assemblages than its overall representation. The Driel Shelter raw material assemblages are overwhelmingly dominated by CCS, while the central Thukela Basin sites of Mbabane Shelter and eSinhlonhlweni Shelter are dominated by hornfels. Quartz is present at the

former site in substantial quantities whereas at the latter site CCS is more common than quartz. At eSinhlonhlweni Shelter, CCS was preferred in the manufacture of backed pieces whereas quartz was preferred in the manufacture of scrapers at Mbabane Shelter.

In summary, it would appear that while the Mbabane Shelter and eSinhlonhlweni Shelter lithic assemblages display some differences, they are generally more similar to each other, than either is to Mgede Shelter.

Discussion

What was the nature of the AD 1000 - 1800 farmer/hunter-gatherer relationship? The pre-nineteenth century Natal historical records are not at all informative. Wright commented, "Though it is clear the friendly contact between Bushmen [San] and Bantu-speakers in Southern Africa took place on a larger scale than previously supposed, lack of evidence makes it impossible to discern any general pattern of relationships before the nineteenth century" (Wright 1971:12 my emphasis). Thus, unless new historical evidence surfaces, our knowledge of farmer/hunter-gatherer relations during the period under review will have to rely primarily on archaeological data and appropriate theoretical tools.

The altered nature of farming community social relations and symbolic expression after AD 1000 would, arguably, have reduced the basis for the suggested equitable and close relations that previously prevailed between these groups. Moreover, the

subsistence data derived from the rock shelter excavations contained almost no domestic items, and this suggests that, as before, they were not a significant component of hunter-gatherer subsistence. It is, of course, feasible that hunter-gatherers had access to these foods, but never returned them to their rock shelter living sites.

The material culture remains do, however, indicate ongoing contact between these communities, but it would seem on a less intense level than before. While, before AD 1000 there is evidence of cultural interaction in most material cultural spheres, this is not the case thereafter. No marine shell, OES beads or stone flakes, which generally occur on all hunter-gatherer sites, were recovered from the farming community sites. Furthermore, little similarity typifies the hunter-gatherers' and farmers' worked bone assemblages. Iron products were, on the other hand, recovered from hunter-gatherer contexts, and, as Maggs & Ward (1980) commented, it is unlikely that such a close resemblance would exist between these communities', pottery without some form of interaction. In addition, the Mgede Shelter AD 1130 decorated pottery resembles more or less contemporary farming community decorated pottery. It would appear that material cultural items, or their styles, as might be the case for pottery, only moved from the farming communities to the hunter-gatherers and not vice versa. This would obviously require verification through additional observations. However, if this is so, it, together with the altered farming community social relations and symbolic expression, would tend to suggest a relationship between these

groups different from that prior to AD 1000.

The linguistic evidence also suggests contact between the farmers and hunter-gatherers (Wright 1971), as do the genetic and physical anthropological conclusions cited earlier (De Villiers 1968; Jenkins 1982). Both De Villiers and Jenkins concluded that extensive interbreeding occurred between these groups in the eastern part of the subcontinent, but, as will be remembered, they never specified when this transpired. Nineteenth century written accounts note that hunter-gatherer women were much sought after as wives by farming community men (Vinnicombe 1976).

In summary, the material culture, linguistic, genetic and physical anthropological evidence is consistent in suggesting that the farmers and hunter-gatherers remained connected between AD 1000 - 1800. The specific nature of their relationship is, however considerably more difficult to discern.

Did the nature of their relationship remain the same but with less intensity, or did the actual structure of the relationship change? I suggest that the evidence presented above supports the second option better, that of a structural change. This conclusion is suggested by the changes in the farming community social relations and symbolic expression as well as the shifts in the material cultural patterning where iron and pottery styles, if not the pottery itself, moved from the farmers to the hunter-gatherers with no apparent reciprocation of material cultural items. The development of social inequalities among the farmers is likely to have been associated with a changing conception of the distribution and exchange of items. Whereas before, items were exchanged to maintain equitable social

relations within alliance networks, it could be that after AD 1000 they moved between these communities in payment for services rendered or the exchange of commodities. For example, hunter-gatherers may have provided the farmers with meat and wild animal skins in exchange for iron products. It would appear that the hunter-gatherers never acquired significant quantities of domestic fauna and plants, unless, of course this food was not returned to their rock shelter homes.

The unfolding scenario is thus one where the farmers and hunter-gatherers remained connected, but the nature of their relations changed structurally. The possibility has been raised that they may have enjoyed a trading relationship or some form of clientship, as was witnessed in the eighteenth and nineteenth centuries. There is also a strong suggestion that the farmers and hunter-gatherers intermarried. More information is, however, required to comment with certainty on how these relations operated. This remains for future fieldwork and theoretical research.

A comparison of the hunter-gatherer material culture, technology and subsistence strategies before and after AD 1000, shows overall similarity between these periods. Indeed, there is nothing to suggest major social or economic disruption. Differences do, however, emerge between the central Thukela Basin sites of Mbabane Shelter and eSinhlonhlweni Shelter and the upper Thukela Basin sites of Driel Shelter and Mgede Shelter. These differences are reflected in scraper and adze lengths, the occurrence of scrapers backed opposite the working edge (only at eSinhlonhlweni Shelter and Mbabane Shelter) and fish hooks (only

at Driel Shelter and Mgede Shelter). The relatively high CCS proportion at Mgede Shelter evidences contact between the people occupying this site and the raw material source area in the vicinity of the Thukela River.

What are the implications of this variability, especially when considering the meaning given to these types of material cultural differences before 2000 BP? In essence, that they, in part, reflect the material cultural manifestation of discrete and independent social regions. While it is conceivable that hunter-gatherers occupying the central and upper parts of the Thukela Basin after AD 1000 belonged to different social regions, I hesitate to suggest this possibility too strongly because of the more complex social situation that existed in the Thukela Basin after the arrival of the farmers. A more conclusive interpretation of this phenomenon will thus have to await further research.

The effect that the changes in hunter-gatherer/farmer relations after AD 1000 would have had on hunter-gatherer gender relations is difficult to discern. The study of the position of women in past South African farming communities is conspicuous by its absence. This prevents full exploration of the effect of these social interactions on the status of hunter-gatherer women. I tentatively submitted earlier, however, that the contact before AD 1000 may have had a negative effect on hunter-gatherer women's status. It is quite possible that this persevered into the second millennium AD, especially as the development of a strong cattle-based economy among the farmers after AD 1000 would probably have served to either reduce women's social status, or

maintain it at a low level if it was already low (Sanday 1981).

Frankly, the above discussion is conjectural and will remain so until a clearer picture emerges of the position of women in past farming societies. Only then will the effect of this contact on hunter-gatherer women be able to be properly assessed. In the meantime, however, I hope this discussion serves as stimulation for further research around these issues.

CHAPTER 8

CONCLUSION

As noted in the introduction, the underlying philosophy of my Thukela Basin Holocene hunter-gatherer project altered considerably after its inception in 1981. In late 1984, and after I had completed my fieldwork programme, I perceived that the ecological paradigm within which the project had been conceived, was deficient in certain respects. This led me to critically evaluate the ecological paradigm, concentrating on the social context within which it was developed and then sustained, its application to South African LSA archaeology, and its weaknesses in documenting and understanding human history, especially social phenomena (see Chapter 2).

While I anticipate being challenged on various aspects of my interpretation of the last two decades of South African LSA archaeology, I am confident that even the most ardent protagonists of the ecological paradigm will agree that it is deficient when trying to understand the actions of past peoples themselves. Consequently, I am certain that no one will dispute that there is an urgent need to formulate new ways of dealing with the hunter-gatherer past. Disagreement is most likely to emerge however, in the development of these new approaches.

The direction taken in this study is clear. My primary aim has been the construction and understanding of the social history of the Holocene Thukela Basin hunter-gatherers.

Furthermore, I have submitted that this can be best achieved using an historical materialist framework. In Chapter 3, I presented and justified my guiding philosophy and theoretical orientation and discussed some methodological considerations. Chapters 4-7 were devoted to the reconstruction of a Holocene hunter-gatherer regional history in the Thukela Basin. The periods dating to before and after 2000 BP were dealt with separately because the arrival of the farming communities in the Thukela Basin between 1500 and 2000 years ago markedly altered the circumstances facing the hunter-gatherers. Any study of the last two thousand years of hunter-gatherer history in the research area must carefully consider hunter-gatherer/farmer relations.

In this conclusion I would like to concentrate on two things; firstly, I want to contrast the approach taken here with that taken for the same period in other parts of South Africa; and secondly, I suggest future research directions.

In her study of the Wilton Large Rockshelter archaeological sequence, J. Deacon (1969, 1972) proposed that the cultural system ontogeny whereby a system underwent five phases "provided a logical framework within which to describe the changes within the Wilton site local sequence through time" (Deacon, J. 1972:38). She related this development to environmental and subsistence parameters, arguing, for example, that, "The maturity of a cultural entity presumably reflects the adaptation of the group to an efficient annual routine and satisfaction of the basic needs of the group" (Deacon, J. 1972:38).

Reporting on his Melkhoutboom Cave and Highlands Rock Shelter excavations, H.J. Deacon applied the concept of homeostasis, arguing that the Robberg, Albany and Wilton Industries represented stable plateaux commensurate with environmental conditions. According to H.J. Deacon, the homeostatic plateaux mark "periods of stability in technology and interrelated variables such as subsistence, social organisation and demography" (Deacon, H.J. 1976:81). Although both H.J. Deacon and J. Deacon (1978, 1980, 1982) who embraced this model, propose that changes occur at the level of adjustments, neither have adequately defined, or described, these adjustments. An example of an adjustment was given by H.J. Deacon as "shifting modes in the scraper class as between the WBM-W and the MB-CAF Units can be described as due to minor adjustments maintaining the system in relative constancy" (Deacon, H.J. 1976:81).

Although the thrust of H.J. Deacon's work on the eastern Cape hunter-gatherer past has been on technological and subsistence adaptations, he has considered social organisation. However, corresponding with his view that the period ca 7000 - 2000 BP represents a homeostatic plateau, he deals with social organisation within a static framework. As remarked in Chapter 5, H.J. Deacon proposed that the Highlands Rock Shelter and Melkhoutboom Cave populations may have belonged to two different linguistic groupings and that "their social distance was likely to have been higher than dialectic tribes" (Deacon, H.J. 1976:170).

Parkington has generally not concerned himself with archaeological change during the mid-Holocene. This is

explicable by the absence of 8000 - 4000 BP deposits in his research area (Parkington 1977a). Parkington (1980) did however focus on this period in a review of H.J. and J. Deacon's interpretations of the eastern Cape archaeological sequence. He challenged the notion that the 7000 - 2000 BP period reflected a homeostatic plateau, arguing instead that this period experienced numerous artefact and related subsistence changes. Inspired by Cohen's (1977) demographic hypotheses, Parkington (1980) submitted that these changing subsistence strategies were associated with increasing populations.

If we compare Parkington and H.J. and J. Deacon's interpretations of the eastern Cape 7000 - 2000 BP archaeological record with that presented here for the Thukela Basin, some substantial differences emerge. The differences do not in any way reflect a richer recovery of material in the Thukela Basin than in other areas. On the contrary, the eastern Cape sites are generally considerably richer than those in the Thukela Basin. The differences relate to the approaches taken.

I have dealt with changing subsistence strategies in a similar way to Parkington (1980), arguing that subsistence changes do occur, and that these are associated with population growth (see Chapter 3). However, Parkington's (1980) interpretation of population growth differs from mine. He views it as something which simply occurs whilst I have argued that people will either inhibit or encourage it depending on their social and economic circumstances.

Beyond the study of subsistence strategies, less similarity is evident between my study and those of Parkington

and the Deacons. Although H.J. Deacon considered social organisation, he did so in a generally static framework without consideration of the genesis and subsequent development of these groups. None of these researchers have considered the spatial and temporal distribution of hxaro type artefacts and the implications thereof for the social development of hunter-gatherer society. Although I have concentrated specifically on the Thukela Basin, the patterns discerned and my interpretations of them, have profound implications for the other areas.

It needs to be emphasised that it is doubtful whether the socially orientated patterns discerned in this study would have been recognised within an ecologically orientated approach. As noted in Chapter 2, the ecologically orientated research has been conducted within a people-to-nature framework (i.e. ecological terms) and not within a people-to-people framework (i.e. social terms) (Bender 1985a). Thus, by its very nature, ecologically orientated research will tend not to focus on social phenomena.

Are patterns similar to those recognised in the Thukela Basin apparent in other areas? Only the eastern Cape lends itself fully to a study similar to that conducted in the Thukela Basin, as it has a large number of excavated Holocene sites. However, detailed investigation of this, and other areas, is beyond the scope of this conclusion. Instead, I shall briefly focus on the temporal patterning of hxaro type items at Melkhoutboom Cave in the eastern Cape (Deacon, H.J. 1976), and Wonderwerk Cave in the northern Cape (Thackeray, A.I. 1983). In the excavation reports on these sites, these items have been

tabulated and the more interesting among them described, but they have generally not been incorporated into the overall models generated to illuminate the human past.

The temporal patterning of non-lithic hxaro type items such as OES, beads, shells and pendants at Melkhoutboom Cave is very interesting. Particularly noticeable is the proliferation of material in the Wedge and Marker units, dated to between ca 7000 - 6000 BP. Decorated OES occurs in the Basal Unit (15 4000 BP) and then only occurs again in the Wedge and Marker Units and pendants and shell discs were only recovered from the Wedge Unit. The density of OES and OES beads is also greatest in these two units. In addition, Nassarius kraussianus is absent from units dated between ca 7000 and 5900 BP, whilst Donax serra appears to be more prolific during this time.

To explain these patterns H.J. Deacon has largely invoked environmental phenomena. For example, "The difference in frequency of [OES] fragments per unit volume is in the order of one magnitude and this probably reflects the habitat preferences of Struthio more than conscious preference on the part of humans" (Deacon, H.J. 1976:32). Similarly, in the case of Nassarius kraussianus, "There is no obvious cultural explanation for the apparent discontinuous time distribution of Nassa, but as it follows the trend noted at Wilton (Deacon, J. 1969, 1972), an explanation is likely to lie in ecological factors relating to the habitat and abundance of these estuarine animals" (Deacon, H.J. 1976:54). In discussing the temporal distribution of Donax serra, an edible marine sand

mussel, H.J. Deacon focused on the absence of this and marine shells in earliest Melkhoutboom Cave deposits around 15 000 BP. After noting that the shoreline would have been 50 km seaward of the present position, he concluded that "More observations of late Pleistocene occurrences are necessary to evaluate what the absence of marine shell in the Basal Unit at Melkhoutboom implies in terms of patterns of seasonal movement and possibly territory" (Deacon, H.J. 1976:53). It is interesting that H.J. Deacon should propose that the early absence of shell might reflect human movement and territory, but that subsequent similar distribution patterns apparently reflect natural ecological phenomena.

A similar proliferation of non-lithic and ground lithic artefacts occurs in the Wonderwerk Cave ca 5000 - 3700 BP levels (Thackeray, A.I. 1983). For example, the six stone rings at this site date to between 5000 and 4000 BP, the four palettes recovered date to ca 5000 BP, the three chert pendants recovered date to ca 4000 BP, a 'vierkanter' dates to 4500 BP, incised decorated fragments of bone were recovered from the 4550 - 3990 BP levels; the greatest frequency of OES and decorated fragments of OES date to between 5000 and 3700 BP, and finally, two OES pendants date to between 5000 and 3700 BP. There are, of course, other hxaro type remains which don't date to between 5000 and 3700 BP, but reference to A.I. Thackeray (1983) shows clearly that these items are concentrated between 5000 and 3700 BP.

Unlike H.J. Deacon (1976), A.I. Thackeray has not provided any explanation for the temporal distribution patterning of the items listed above. J. Deacon has provided another type

of explanation for what appears to be a temporal distribution patterning of non-lithic remains. She argues that the temporal distribution of worked bone at Boomplaas Cave is the product of a sampling vagary and has no cultural significance (Deacon, J. 1982:211).

It is not my aim to provide alternate explanations for the distribution patterns isolated at Melkhoutboom Cave and Wonderwerk Cave. This cannot be done without detailed analysis of associated parameters such as subsistence strategies and artefact and demographic patterning. Such an analysis is beyond the scope of this study, and must be regarded as essential to any future studies at these sites or in their general areas. However, on the basis of the Thukela Basin case study presented here, it is tempting to suggest that the proliferation of hxaro type items at these sites is the manifestation of societies experiencing stress and requiring to invest substantially in maintaining social relations.

Whatever the interpretations of the Melkhoutboom Cave and Highlands Cave patterns however, it must be emphasised that these have only been drawn out because of the framework employed in this study i.e. historical materialism. In view of this, it is of interest to be reminded of Gregory (1984) and Spriggs's (1984) comments mentioned in Chapter 3. They state that theoretical approaches will ultimately be judged by the level of information generated regarding past societies.

Returning to the Thukela Basin, and this case study, what are the requirements for future research? Firstly, many more sites need to be excavated. This is particularly critical when

considering the problems associated with trying to define social regions around single sites. The Ndaka and Toleni social regions are essentially represented by one site each, and excavations in these regions are thus important to investigate their integrity. More excavations are also needed in the central Thukela Basin. These will, among other things, check whether the proposition that this area was not occupied before 2000 BP, as is suggested by current research findings, can be sustained. I have also identified the importance of finding sites, close to Gehle Shelter and Sikhanyisweni Shelter, with good organic preservation in order to provide better insights into the economic and social strategies practised by the people occupying those areas.

But it is not only the excavation of more sites and the generation of more data that will take us closer to the "truth". Coupled with an enlarged excavation programme, there are other spheres that require urgent attention. In this study I have emphasized social phenomena. However, it is clear from the discussion in Chapters 5-7 that there is a great need for more emphasis to be placed on the theory and methodology of moving from information generated by excavations to the inferring of social trends. This is no easy task, but one which will have to be tackled with increased vigour by archaeologists if they are to move beyond statements on technological and economic strategies of past hunter-gatherer societies to elucidating social history. As stressed in Chapter 3, this will require increased emphasis to be placed on the types of questions that will generate greater insights on social phenomena. However, it is acknowledged that simply asking more pertinent questions on past hunter-gatherer

societies will not in itself produce greater information on them. This will be achieved through close, critical and imaginative interaction between theory on the one hand and archaeological data and other pertinent information on the other hand.

I have tried in this study to overcome the problem of theoretical leapfrogging of which archaeologists using an historical materialist framework are sometimes guilty (Trigger 1985), by paying attention to economic variables and the articulation of the social relations and forces of production. The problem of theoretical leapfrogging tends to arise when archeologists move straight to statements on social strategies and ideology without due consideration of a society's technological and economic predicament. In Chapter 3 I stressed that it is essential that there exists a constant and tight dialectical movement between the forces and social relations of production. In addition, in moving from one to the other, there must exist internal logic and consistency.

One social phenomenon requiring urgent study is the recognition of gender symbolism in the archaeological record. This topic has begun to receive attention. For example, Cucchiari (1981) uses Leroi-Gourhan's identification of male and female symbols in western European rock paintings to suggest changing gender relations during the Upper Palaeolithic (see Chapter 6). In a somewhat different study, but also concerned with gender representation in the archaeological record, S. Smith (n.d.) analysed burial goods from predynastic Egypt. She demonstrated that different types of goods were associated with males and females. This has led her to conclude, among other

things, that

"Thematically, females align with domestic foods, water, supernatural regeneration, and non-human fertility. Males align with wild animals, the natural or real world, and sustenance" (Smith, S. n.d. :69).

These works, as well as others, provide a starting point from which to develop. I was unable to locate direct examples of gender representation reflected in the material culture in the Thukela Basin, except in perhaps the raw material/formal tool relationship, discerned north of the Thukela River. Here, exotic raw materials were associated with men's activities and local raw materials with women's activities. No burials were recovered in the Thukela Basin. But in other areas where they have been found in association with grave goods, study of them may be profitable for gender related research.

I have also identified in the text other areas, which are not explicitly gender orientated, which require attention. These include, for example, the study of human protein tolerance, and the intrasite distribution of microfauna to enable a more definite conclusion as to whether they were human food.

Up until now I have focused primarily on the 10 000 - 2000 BP period. What about the following period? There is no published research in South Africa on the relationship between farmers and hunter-gatherers with which to compare the scenario proposed in Chapter 7. Although Hall (1985, 1987 in press) has theorised on the relationship between these people, and Maggs (1980) has made the occasional reference to their relationship, neither have investigated this phenomenon in a systematic and rigorous fashion, incorporating both theoretical and empirical

parameters.

As with the period before 2000 BP, the first requirement of any future research programme on this period of history is the excavation of more sites. These excavations must have explicit research goals. Thinking specifically of hunter-gatherer research in the central Thukela Basin, the excavation of AD 700 - 1500 deposits, rich in plant remains, is critical, as no deposits dating to this period have been uncovered. Further excavations in the upper Thukela Basin are also essential, especially in order to check whether the hunter-gatherers did largely depopulate this area and settle in the central Thukela Basin in the wake of farming communities establishing themselves there. This, however, can be achieved within a general Holocene excavation programme in this area.

It is imperative that future hunter-gatherer research of the last two thousand years is complemented by research on farming communities. As strongly suggested in this study, any understanding of this period of hunter-gatherer history cannot be achieved without consideration of the farming communities. Important inroads have been made in the study of the social relations and symbolic expression of farming communities (Hall 1985, 1987 in press; Huffman 1986), but these need to be expanded. A theme requiring urgent attention by archaeologists studying farming communities, is that of gender relations, which up to now has been conspicuous by its absence. Knowledge of the position of women in farming communities is imperative if we are properly to assess the impact the farming communities had on hunter-gatherer gender relations.

In this conclusion I have emphasised the immense amount of work that still needs to be done in the Thukela Basin and elsewhere. However, it is clear from speaking to South African LSA archaeologists that they are beginning to perceive and respond to this challenge. J. Deacon's (1986) recent research on the Bleek records is proof of this. The task of re-orientating South African LSA archaeology onto a social and historical footing is great, and will require determination and imagination. But, I am confident that this will be successfully achieved, and that archaeologists will be suitably rewarded by the growth of what should be our ultimate goal - historical knowledge.

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